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On Sale Third Wednesday of Each Month

VOLUME XVIII
Number 1

ASTOUNDING

STORIES

SEPTEMBER
1904

A STREET & SMITH PUBLICATION

The entire contents of this prospectus are intended to provide, and must not be construed, as an offer of securities.

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AD ASTRA

Light filters through a dust blanket to reach the earth. That lets us live. But we in turn must look through that dust to see the stars.

Sometimes, reading over the copy for Brain Tacks, I wonder whether we realize the presence of the dust which dims our vision even while it makes that vision possible.

I read objections because I call attention on the cover to the fact that we give you 32 more pages of stories than our competitors. I read letters side by side, praising and blaming (respectively) a single story. And I think back a year to the moment when I decided a certain writer would one day be great if I groomed his copy and encouraged him.

I have worked with new writers as well as old for three years. Some have fallen by the wayside—but some have not. I would mention names except for one thing—it often reflects adversely in a writer's work. I have checked back over the months, watching your letters. I have seen the percentage of praise rise, the percentage of criticism fall until there is no question but what I have chosen well in several instances.

If it has meant that I have worked at night to help redress a story writer's because it carried an idea, only the author and I were aware of it. He, because when he read his story he could see—and I because I worked over it. That is why Ascending has improved as I know it has. That is why we are gradually building what will one day be called the greatest group of science-fiction writers of all time.

Light filters through a dust blanket, to the earth, to every writer, to every one of us. We have to learn to see clearly in spite of obstacles—and it is hard sometimes. You and I both know that. But we have the vision in common.

This month I give you Donald Wandrei in a story that you must not read too fast. It is too all-encompassing for that. But those of you who like carefully projected scientific thought will like it a lot.

So, even in this, we have the dust cloud to peer through—to the stars. Ad Astra, per Aspera—to the stars through difficulties.

—The Editor.



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*A novel of Time, Space, Matter, Life,
Energy and Intelligence—Unleashed!*

by Donald Wandrei

TOWARD THE CLOSE of that sizzling August afternoon, Stanley King left the theater where his play was in rehearsal and took a taxi to his apartment. The rehearsals had reached a point that no longer needed his presence. He intended to throw a few things into a bag and hop a stratosplane for the Canadian Northwest. It was too hot to swelter in town.

The only remaining ties that held him in New York were contract commitments and Merl. The contract material consisted of a science-fiction story due at the Newspaper Syndicate in a week, and a futuristic television script for a broadcast scheduled a month later, but these could be done as well elsewhere—better because a few days' vacation and rest would refresh him. As for Merl Hudson, he'd be glad to see her when he returned.

Despite the heat, an air of excitement prevailed on the streets and the hanging-garden cafés. The Second Expedition to Mercury should land at any time now with news of what happened to the First Expedition, still missing from its maiden voyage years ago in 1991.

The arteries and towers of Manhattan had begun to assume the aspect of a dream city, as the products of science came into wider use. The race was markedly happier, healthier, taller than a century before; the atmosphere filtered of dirt and gases; the harbors clean again; life a richer and broader experience. Each individual carried an identification tag, and a pocket radiophone

that permitted conversation with any one anywhere on the globe.

But the sultry heat of the day remained, and though Stanley King could bear it because of the scanty, porous, almost weightless clothing that had won general approval, he didn't like it.

When he reached his apartment—a crystal-enclosed penthouse that received all its power and energy from the sun by way of storage batteries connected with a huge photo-electric cell on the roof—he took a shower to cool off. After the shower he stepped into the electrostatic field of tension that discharged every lingering bit of grime and dirt from his skin.

Exhilarated, cleansed, he surveyed himself in the electric aluminum mirrors. He was exactly six feet tall, his skin a golden tan, covering a smoothly compact body without fat and without muscular bulges. The conquest of cancer; the discovery of anti-bodies for the frightful viruses; the control of gold; the vastly increased knowledge of vitamins, food values, hygiene and physical culture had, by the end of the Twentieth Century, launched races the world over upon the way to Superman.

Stanley King had dressed and begun packing when he heard the signal of his pocket radiophone. He hesitated about answering it. He didn't want to get tangled with anything that might delay his departure. Still, it might be a call of importance, and finally he answered with a noncommittal, "Yes?"

ASTOUNDING

STORIES

20-



FINALLY UNUNITED

BY HERMAN KRAVITZ

NO PAGES

"Hello, Stan!" He hardly recognized the voice of Van Field Ruyter, so shaken was it by uncontrollable excitement.

"What's the matter? Anything wrong? You sound as if you had a prime case of jitters."

"I have. Do you know what day this is? It's the last day of August, the 28th, in the first year of the thirteen-month calendar."

Stanley King thought hard. He couldn't remember any special significance of the day. "Well, what of it?"

"What of it?" Ruyter echoed, a note of complaint entering his excitement. "Don't you remember the date we set a month ago? When I was telling you about my work and said I'd be ready to demonstrate it the last day of the month? Well, everything's ready. Come out now—you know the way to the lab—and you'll get a preview of something that's beyond your wildest dreams!"

"Well, I don't know, Van, I was just going—but you certainly seem excited. I couldn't place your voice at first. Is it really big?"

"Big isn't the word for it. It's—it's—there simply isn't a word big enough to describe it. You've got to come, now!"

"Public demonstration?"

"No, private, just us. I don't quite know myself how it will work out, and until I do—Stan, make it fast. I can't wait. I've got to know. And I want your advice. The advice of some one who isn't all wrapped up in the thing, because it's possible that there will never be another demonstration."

"But what the devil is this mysterious work of yours? You haven't yet told me. You always evaded the details."

"I couldn't begin to tell you over the phone if I talked for hours. You'll have to see the machines themselves and get the theory that way in part, and even then it won't be easy going."

STANLEY KING sighed. He recalled the earlier conversation and appointment which he hadn't considered definite. After all, he might as well find out what Ruyter had on his mind. They had been close friends for years, since the day the scientist wrote to him taking him to task with pointed wit over a technical error in one of his earlier works. Ruyter was one of a distinctive group of scientists who had risen in the last decade of the Twentieth Century, a selective specialist, outstanding in the allied fields of physics, chemistry, mathematics, and mechanical invention.

The author promised him an immediate visit, and started replacing the radio-phonograph set when a key scraped. The door of his penthouse opened.

In walked Merl Hudson. She was an interesting, odd young woman, with a sly twist to her lips and a cool, frank gaze. Not as tall as Stanley, but built on the trim lines of a greyhound, she wore with arresting effect a jacket and trousers suit of a shimmering, translucent, purple fabric that made her curves more enticing. It put high lights into her eyes and into the cobalt-blue tresses which attracted attention everywhere.

At any other time he would have swept her into his arms, but he felt a trifle guilty from his failure to escape before she dropped in.

"You aren't planning a trip by any chance?" she drawled, eyeing his packed bag.

"Why, yes, but not now."

"Good. That'll give me time for a shower and to put the necessities in a case. I'll be ready to go in a half hour."

"Don't rush yourself. Ruyter wants to see me. I was just leaving, and I've no idea how long it'll take."

"That's simple to find out. I'll string along."

"Look here, Merl, there's no point in that. To begin with, it's something secret that he's been working on—"

"I love secrets," said Merl enthusiastically as she tucked her arm in his. "Let's go."

"But——"

"Hurry, or we'll be late, and that would make us later in returning, and later still in taking off for whatever you had in mind. By the way, you didn't say where. All right, where?"

"The equator," Stan answered sourly. "And if a hotter place existed, I'd wish you there."

"That's what I adore about you," she retorted sweetly. "Your good nature and your simply wonderful, gallant approach."

While they rode down in the elevator, Merl waited until it had taken on several additional riders. Then she stood on tiptoe as if to whisper in his ear, but instead kissed it lightly and bit the lobe. "That's for remembrance," she hissed.

The passengers looked on with varied expressions of amusement and interest. Stan flushed, wiped the fleck of blood with a handkerchief. "Wait till we're back," he promised under his breath.

"Will it be romantic?"

"Romantic? Woman, you're in for the spanking of your life. And after that——"

"Yes, after that? Go on. I love it."

"After that it'll take you a day to recover from what I'm going to do to you. And by that time I'll have gotten halfway round the world."

Merl's eyes gleamed. She turned her head to stare straight up into his eyes. She moistened the bud of her lips with a pleased expression. "I can't wait. Let's not see Ruyter. Let's go back now."

Stan didn't answer. Merl was unmanageable in her mischievous moods. They intensified her personality, made her more disturbing, more unpredictable, added spice to her unusual attractiveness.

A CROSSTOWN pedestrian belt brought them to the landing fields and hangars covering the shores of the North River. They climbed into the helicopter—one of the smart new models that had lately become popular because it was impossible to wreck—and soared away.

Fifteen minutes later, they walked up to Ruyter's laboratory in West New York. Ruyter had inherited wealth and had multiplied it through valuable patents of his own. His independence enabled him to build and equip a workshop superior to all the industrial and technical laboratories around the country, and to pursue there, free of restriction, whatever work and ideas he chose at his own leisure.

Van Field Ruyter looked like a frail youth of thirty, but he was nearer fifty and possessed surprising strength when he needed it. He had the pink, innocent face of a child and sandy, gray hair. He scarcely reached Stanley's shoulders in height.

"This is, Merl Hudson. I couldn't help bringing her along," Stan apologized. "You'll find her a barnacle, the way she grows on you. I'd consider it a personal favor if you'd kick her out."

"Thanks, and I'll do the same for you some day," Merl murmured gently. To Ruyter: "I'll go if you like, but it would be more than a thrill, it would be a deep pleasure to watch your work. I've heard much about it, and I've never before met genius."

"That spanking's going to be a lot more fun than I thought," Stan promised. "Insulate for me and soft soap for Ruyter——"

"A charming young lady, most charming, indeed. I thank you." The scientist bowed. "Do I mind your being here? Not at all, not at all. It isn't likely that you'll have the slightest comprehension of my work."

"I'm not sure I care for that last crack," said Merl with a smile.

"It wasn't meant as such, I assure you. Come right in, both of you. As a matter of fact, I'm rather pleased than otherwise that you came. My congratulations, Stanley; you've enabled me to enlarge the scale of the initial tests. A woman; yes, indeed, a woman, and a most attractive one you are, lovely curves, Miss Hutchins."

"Hudson," she insisted. "But maybe I'd better leave. The way you ogle me and mumble toothsome about women, you'd think I was the last one on earth. I wonder if it's safe for me here?"

"By no means. I think it may prove very dangerous."

"Good. Then I'll stay." She marched in with him and Stan, paused on the threshold of the door he had opened.

This particular room of the laboratory, though not so large as many that she had seen, gave an impression of cathedral-like spaciousness, from the subdued reflections of its silvery walls, and its absence of the usual cluttering paraphernalia. A circular room, with a domed ceiling, much like a planetarium, it grouped everything in it at its center after the manner of segments radiating from a dais.

These segments totaled six, not a great number but more impressive than thousands, and not great in size, but implicit of vast potentialities. Those six machines possessed an austere, terrifying beauty. The tooled perfection of their heavier parts; the hand-wrought and microscopic delicacy of other units; the luster of radiant metals and black minerals; fluorescent crystal; pulsing tubes and spheres of constantly changing luminescence; the panels of controls; their enigmatic purpose or function; all these first impressions made her catch her breath.

Even Stanley, who had seen far more than she of science's equipment, walked to the machines with puzzled features.

On one of them, a pointer hung over

the center of a band which Stanley took for a spectrum at first glance and which extended the entire width of the panel. Upon closer study he noticed a division in the exact middle. Toward each end ran other lines, first marking off days, then months and years, then hundreds and thousands and millions and billions of years, then symbols which he did not understand but which he guessed to represent figures in higher mathematics.

The second machine proved extraordinary. All its vital parts lay inside a variable sphere or bubble, the substance of which he could not identify. It seemed at one moment clear and rigid like glass, then opaque; next intangible like fog or smoke. The optical principle involved, strange to him, hurt his eyes. He turned away from the shell and contents of that remarkable spheroid.

The third segment reminded him of nothing so much as an armored turret, squat, formidable, ponderous, and of immense weight.

The fourth returned to more fanciful lines, and suggested in a general way the atom-smashing devices he had seen during the past.

He stared long at the fifth in the series. It was translucent, veined, protoplasmic, yet it contained both organic and inorganic materials. A honeycomb in structure, a complicated geometric figure in form, it completely baffled Stanley's understanding. The soft framework ought to have collapsed, but didn't. Neither rigid nor fluid, it vacillated between both alternatives with restless, uneasy changes.

The sixth unit impressed Stanley least. It appeared to be a gigantic cell, filled with a colorless liquid, but as he examined it closer, he acquired a new respect. He could not identify the contents positively, whether liquid, or an inert, invisible gas, or a vacuum. Like the spheroid, that huge cell possessed a surface of changing tension, impalpable.

ble, fluctuant. Upon him grew the eerie belief that the cell imprisoned a disembodied spirit vainly trying to escape.

"Fascinating, these works of my life-time, aren't they?" sounded Ruyter's voice at his side.

"Yes, but I don't understand them."

The scientist's answer staggered his intellect. "In the order in which you studied them, they govern Time, Space, Matter, Energy, Life, and Intelligence, which are the six and the only basic factors of the entire universe."

II.

STAN groped his way out of the silence wherein he had struggled with the full significance of Ruyter's statement. "You mean that each of these six machines controls one of the primary parts of the universe?"

"Exactly."

"That's something to think about for the rest of my life. What would happen if the six ran wild together?"

"I don't know, but I'm going to find out. It will be the last phase of the experiment. It's the reason why I wanted you present."

"Then the machines are actually linked, in series, now?"

"Yes."

"Of course, they'd have to be," said Stan after a moment's reflection. "Time couldn't exist independently of Space and Matter."

"Couldn't it?" asked Ruyter with an odd smile. He disconnected two parts of the Time Control, made other adjustments on its panel. "I have now separated the Time Control from the other five factors. Are you ready for a quick try-out? Take the chairs on the central dais. Look at your wrist watch and tell me the exact time."

"Six minutes after five," said Stan.

He heard a click, then, "Are you sure?"

Stan blinked his eyes. "That's

strange. It's sixteen minutes after five. I could have sworn it was only six minutes after." He glanced up.

Ruyter was standing at the entrance of the laboratory, a distance from his previous position that he could not possibly have covered in the blink of an eyelash, and he was extinguishing the butt of a cigarette that had magically appeared from nowhere.

"What the devil is this?" Stan blurted. He felt on the verge of remembering, but could not recall what or where. A lost idea tantalized him.

Ruyter again smiled queerly. "I sent you two billion years ahead in time. Accurately speaking, I sent Time, independent of the other five factors, ahead by that amount and brought it back."

"That's nonsense."

"Look at the graph."

Stan got up and walked to the Time Control. The pointer had charted a course to the two-billion-year future marking, and back to a mark ten minutes later than the start. "I still don't believe it. I have no memory of such an event."

"Of course not. How could you? I projected Time for two billion years, but, mind you, and it is an enormous 'but,' without the other five basic factors. Time leaped ahead, but not Space, Matter, Life, Energy, or Intelligence. Therefore, you have no consciousness of the experience. Under the same circumstances, you never could remember the event. All you know is that it is ten minutes later than you thought. You have lost no part of your life, but there is a gap that you are not aware of."

Stan said, "That's over my head. Suppose I'd been driving a motor car?"

"Many persons were driving motor cars and many others—"

"What?" Stan almost shouted.

"Certainly. Did you think that you were an isolated subject? Time does not exist for your special benefit; it exists for every one. When I set the con-

trois, you, I, the earth, the solar system, our galaxy, the entire universe vanished, to all intents, from existence as Time alone leaped forward two billion years. All over the world, right now, people are wondering how ten minutes suddenly passed. Those who drove motor cars are still driving, at the same point as before, but it is ten minutes later."

MERL, who had kept quiet, came out with, "If the test affected every one as you claim, how does it happen that you walked across the room and smoked a cigarette while the rest of us supposedly leaped a couple of billion years forward and back again?"

"An excellent question, but I won't attempt to answer it in detail at this stage. Briefly, I've made this experiment on a number of previous occasions and have learned how to continue my normal existence while cutting Time free from its anchorages, so to speak. However, I have no memory of walking across the room, or of smoking the cigarette. They were actions that occurred outside of Time."

Merl sighed. "That makes it all clear. About as clear as some of Stan's flights of imagination."

"The spanking gets to be a better and better idea. It's an experience you won't recover from for days," the writer retorted.

"A spanking?" echoed Ruyter, his face bright with interest. "How quaint. How very quaint! It's a notion that never before occurred to me. I do hope you invite me to watch."

"I've met some paradoxes before but this one's a honey," Merl answered, uncertain whether to be amused or angry. "You play around with cosmic ideas as if they were marbles and talk blithely about figures in billions, but a spanking strikes you as something unique."

"It's a different kind of figure," said Stan.

"One more crack like that and I'll start punning."

Stan hastily asked Ruyter, "Do the other five machines give the same sort of negative result when each is detached from the rest? If you monkeyed with Space the same way you tampered with Time, would I notice anything different? For that matter, how do you know what happens if you don't have a memory of it?"

"One question at a time, please. A process of reasoning enables me to grasp what transpires. I see the results as indicated on the charts and graphs. I establish a hypothesis to account for the results. The theory explains the facts and vice versa."

"As for isolating each of the machines, I've tried them all. I'll let you see the results for yourself if you wish."

"Tell us what happens," urged Merl.

"If I detached the Space Control from the others, you would, as before, have no memory or consciousness of what happened. But actually, the entire universe, as we know it, would be blotted out instantly. There would remain, not Space as such, but space on the brink of becoming Space."

"Space on the brink of becoming Space—phew! Try sinking your mental teeth into that one!" Stan wrinkled his brow.

Ruyter chuckled. "The concept dismayed me as much as you when I first figured it out. It's very simple, really. Space could not exist without Time; therefore, if freed from Time, it would have no duration but would always be on the verge of becoming Space, and all infinity would occupy less than the least fraction of a second that you can possibly imagine."

"Isolating the four other basic factors—Energy, Matter, Life, and Intelligence—produces equally strange results. Pure Intelligence, for example, yields thought that has nothing to think about. Pure Life yields existence that has noth-

ing to exist upon. Pure Energy and Matter, like Time and Space, yield abstract conditions or verges that are impossible for our minds to grasp.

"But these isolations, the separation of any one of the given six from the other five, offer us only freakish states and fantastic curiosities. They don't advance our knowledge to any considerable degree. They are the six basic factors, to be sure, but their importance begins when one is linked to a second factor, and the importance multiplies as the whole series is brought into mutual action and reaction."

Stan whistled. "The number of possible combinations must be unlimited!"

"Not so. Each of the basic units provides us fifteen different pairs. In threes, twenty combinations are possible; in fours, six combinations; in fives, three combinations; while, of course, only one combination exists for the six. Altogether, the total is only fifty-one, but the fifty-first, the combination of all six, provides more immense and far-reaching possibilities than the other fifty together."

"I don't follow you at all," said Stan.

"And I don't follow you either, even better than Stan," added Merl with more conviction than sense.

"THEN look at the problem from this standpoint. I can hook Space and Time together, but detach them from the other four basic units. I can hook Matter and Intelligence together in the same way. Or I can put Space, Time, and Matter in series, but isolate them from Energy, Life, and Intelligence. Or I can form a series of four with Intelligence, Life, Matter and Energy, but having no existence in Space or Time.

"The single states, the pairs, trios, quartets, and quintets all yield abnormal, bizarre results that are difficult to comprehend. The reason is simple. We have grown up, developed, evolved in a

universe composed of and founded upon the mutual relation of the six basic factors. Those six factors are woven into our lives from birth. They are the means by which we study the universe, and they are parts of the universe, just as they are parts of us, and the means by which we try to understand ourselves and our place in the universe. We do not think of them as separate factors, but as links in a series, parts of the whole group."

Stan nodded. "I begin to see the light. In other words, the universe as we know it would stop being the universe that we know if any one of the six factors disappeared. So the universe, meaning everything that is throughout all Space and Time, only makes sense in our minds when we take into account the whole six. Is that it?"

"That's the thought I was trying to convey."

"Well, that brings us back to what you said about the fifty-first combination. You said something about its being the most spectacular of all. Why?"

"My dear Stan! Think for a moment!" Ruyter exclaimed in surprise. "Is it possible that you don't see the full implications? Put the six factors in series. Set the Time Control at two billion years forward. Leave the Space Control as it is now. Set the Intelligence Control at absolute. Put the Matter and Energy Controls back to the point at which our solar system was born. Then let the Life Control run wild——"

"Don't! I'm absolutely crazy already without trying to get all that through my addled brain!" wailed Merl.

III.

A HUSH fell over the laboratory. In that silence, Stanley King watched Van Field Ruyter move about among the glimmering machines, reconnecting them

in series after making sure that the central control switches were open.

Merl wore a dazed expression, her lips parted and her features relaxed from sheer inability to cope with the ideas. The twenty-two years of her life hadn't provided her with one tenth as many colossal vistas as Ruyter had opened to her imagination in the past twenty-two minutes.

Stan wrestled with the scientist's postulates. Scarcely better than Merl was he able to visualize what would ensue if Ruyter actually put his suggestion into effect. A drone crept to his ear, annoyed him. Power—of course. Power and energy to operate the controls. The drone must have existed when he first entered the room. Curious, he hadn't noticed it before. But the sight of those gloriously wrought and fantastically impressive mechanism had absorbed his attention. Then Ruyter's involved concepts.

Stan's specialty did not lie among the newer mathematics, or astrophysics, or cosmic origins, or atomic and universal relations, or theories of being, or even the complex aspects of mechanical invention.

He had written as an interested observer a good deal about modern science which appealed to him because it liberated him from the shackles of earth and the limitations of mundane existence. It pleased him that Ruyter chose him to watch the tests, but lacking the necessary technical background, he felt uneasy and perplexed.

The machines bothered him most of all. He couldn't figure out how they operated, what made them work, the principles utilized. Probably his very ignorance was a consideration that influenced Ruyter to select him, in the knowledge that the secrets couldn't be divulged.

"Would you like to try another experiment?" The words drifted into his preoccupied mind.

He came to with a start. "Experiment? Of course. Sure. What kind?"

Merl objected, "Not without me. You go, I go too."

The odd smile hovered on Ruyter's face once more. "My dear Miss Hudson—"

"Hudson," Merl doggedly insisted.

"—you are perfectly welcome to partake of the test. Indeed, I was about to ask if you wouldn't be so kind."

"Something tells me I should have kept still. I don't like the sugary tone. I'm beginning to understand why a nice fragrant hunk of cheese is irresistible to even the most skeptical mouse. Oh well, it'll be worth it if Stan gets into a silly mess." Merl's candor carried no bite, came like a refreshing breeze.

Ruyter warned them, "The experience is likely to prove terrifying, if not dangerous, but shouldn't have fatal results."

"A small consolation, but an important one," Merl remarked in a sarcastic tone.

Stan urged, "Pay no attention to her. She's irresponsible. She fell on her head when she was young. She'll get over it, maybe, if she falls on her head again, hard enough. What sort of a test did you have in mind?"

"I intend to vary the Space Control, but to maintain the other rigidly in the status quo."

Stan frowned; Merl frowned, and each burst into a peal of laughter at the other's lugubrious expression.

Ruyter complained, "It isn't funny. It's far more serious than you seem to think. In fact I'll gladly halt the demonstration right now—"

"We're ready."

"But I'd like—" Merl began.

"I'm ready," Stan repeated.

"Then I'm ready too," Merl chimed in.

"Approximately how will the demonstration affect us?" asked Stan.

"I will stop Time, in a state of stasis, at the exact instant that I liberate you from the restrictions of Space. The other Controls will be harmonized with Time, in the same stasis. I can't promise what will follow. You won't be together, and both of you are apt to find the experience a strain on your nerves. It will amount to allowing you to occupy any or all positions in Space whether you wish or not."

Stan and Merl were both still struggling with Ruyter's newest brain teaser when he closed the Controls. Stan saw a sudden tense, timid appeal dawn on Merl's face. He took a step toward her, intending to reassure her.

AS he looked up at the hot morning sky, he wondered how he came to be in the streets of an Oriental city. The babble of a strange language assailed his ears. Dirty, ragged, yellow-skinned figures swarmed the narrow street. The shock of the instantaneous change of surroundings prevented him from feeling alarmed.

He reached out a hand to steady himself against the wall of a mud hut, but there was nothing where the wall had been, and he collapsed upon desert sands, the cold stars blazing above him in the most brilliant night sky he had ever seen.

The double change, as swift as the image of nightmare, left him with a detached sensation, the imminence of waking from a bad dream. He stared at the constellations, picked out Aldebaran, Sirius, Venus, then got on his feet.

Black, terrible night infolded him. There was no land beneath him or above him, only the infinity of stars. The fearful cold of interplanetary space smote him. He was not falling, or moving, only suspended in the vastnesses between the stars, his perspective so warped that he could not identify a single sun in those far-flung myriads.

AST-2

He gave a hoarse cry that stopped abruptly as he found himself floundering on the surface of a slimy, milky, and gently rolling sea. The atmosphere was yellowish, choking with intolerable gaseous odors. It scared his lungs. A dark shape torpedoed through those stagnant waters, a shape with black, unctuous flanges as sharp as knives that lanced toward him. Panic swept over him. His arms flailed.

He tottered, drenched and chill, upon the slopes of a titanic ice plateau.

There was a city upon the plateau, a city of snow and frost but without windows or doors, and through it drifted the bluish, bitter-cold wreaths of its mysterious inhabitants, intent upon whatever business occupied them in whatever planet of whatever system he had reached. Streamers of cloud swirled in his direction. Behind its vague density he sensed an inquiring spirit, an order of intelligence, but there were neither hands nor eyes, mouth or nostrils or ears or any comparable feature by which he could hope to establish communication. He raised his hand—

And found himself immobile in solid rock, molten, incandescent, squeezing him with the enormous pressures and flaming temperatures of the core of a sun. Like the infinite cold of space, the immeasurable heat scared him, and he knew, briefly, that in the same brief instant he would become a cinder, ash. Frantically, he tried to move, to liberate his rock-bound hands and tortured flesh. He could not even open his mouth to scream. Everywhere raged the whitely molten lava and furious gas—

Gone like a vision. He trod the flagstones of a mighty hall whose soaring ramparts merged with a haze that he mistook in its dim immensity and remoteness for the sky. He watched the mighty beings who strode down those aisles, alien beings, colossal beings, of a dull-red color in their skeletal frame—

work, like the vertebrae of extinct monsters on earth, and surrounded by invisible flesh. The scene appalled him. The silent intentness of the beings, the purpose of their motion, the nature of the hall, the sickly green light that seeped from the flagstones, all built up in him fear and longing.

"Merl! Ruyter!" he gasped.

Cyclonic winds buffeted him, screaming, shrieking gales that drove rain and acid and roaring clouds of vile mud in torrential deluges. The gales lifted him, flung him miles forward over black, rank jungles and the hideous torment of a planet in the convulsions of birth. Tumbled headlong, he threshed blindly, attempting to reach anchorage.

There were cocoons around him in the soft, humid darkness, cocoons that ripened for the hour of monstrous emergence. The attendant had many spikes upon its outer shell, and used these spikes to prod the cocoons, opening one here, anesthetizing one there, approaching Stanley King with a creepy, antagonistic purpose. He squashed the cocoons as he tried to escape. Glory flared welled out and clung to his limbs.

He flung himself forward, and tripped over a chunk of iron-hard lava. Darkness encompassed him, with only enough light from the stars to outline the curve of a horizon a mile away. It was a desolate world, a tiny planetoid, a dead mass drifting somewhere among the outer reaches of space.

Outer reaches? The last reaches, the ultimate void, for in the blackness overhead lay a glowing disk at the zenith, and by an intuitive sense rather than knowledge he defined the great saucer as the galaxies and star clusters of the universe known to man. And if that was true, then the giant cinder that he rode must be eddying away from the universe, plunging toward abysses and chasms beyond. He strove to draw a breath, but the planetoid possessed no

air, no water, no life, and instead of inhaling, he felt the breath being sucked out of him, torn away, leaving him like a fish out of water.

He struggled weakly, rose to his knees, glared at the polished woodwork and flooring that had magically replaced the rock. He raised his head with wild eyes. He thought he saw a diminishing haze around the spheroid of the Space Control, an instantaneous compression and collapse from expansion of infinite magnitude. He waited for the scene to change, expecting to totter through another shift and still other warps and bends as space fell away from him. But the laboratory remained constant.

Ruyter looked shaken, and was bleeding from a gash on his cheek as he staggered weakly to a chair.

The tick of his watch sounded suddenly loud in Stan's ears. The stasis had ended. But Stan's chaotic impressions focused upon Merl, lying limp and deathly pale upon the dais.

IV.

AS RUYTER and Stan worked upon Merl, she slowly regained consciousness. Her eyes clouded, and a shudder racked her momentarily.

"What happened to you?" asked Stan.

She shook her head slowly, confessed, "I don't know. I was standing here—and then I wasn't here but somewhere else. I don't know where. I saw ships in the sky, a great fleet of ships, thousands upon thousands of them, fighting, exploding, and the air full of flame and thunder, only it wasn't air at all, but a sort of greenish murk. I never dreamed of such giant ships. They must have been miles long, great silvery submarines in the sky. I was standing on a hilltop. And beside me stood something else—ugh! It was like a mass of tar, and it made bubbling, hissing sounds, and it started after me in a loathsome

way I can't describe. The thing clung to me, and I couldn't throw it off. I started running—and then I must have fainted—and that's all I remember."

Stan looked at her bare ankles. The cuff of her purple trousers carried a smear, and upon her white flesh adhered a clot of dark substance that bubbled faintly. It emitted an odor of unbearably sweet decay, like overripe fruit. With disgust and repugnance upon his features, he wiped the stuff off.

"My experiences probably would not interest you nearly as much as yours do me," Ruyter remarked, his eyes bright and eager.

"Your experiences?" Stan frowned.

"Great Scott, am I going to have to make the same explanation to you over and over again? Of course I went through a set of dislocations in Space comparable to yours. Space doesn't exist for your special benefit any more than Time does, or any of the other basic factors. When I varied the structure of Space, your surroundings constantly changed. So did Miss Hudson's. So did mine. So did those of every one else living upon this or any other planet. But I fixed the Controls for the end of the stasis to restore each segment of Space to the position from which it had been dislocated."

"I'd hate to be on the streets of New York right now," Stan fervently exclaimed. "If what you say is true, then everybody must have gone through hell."

Ruyter shrugged imperturbably. "If you wish to express it that way, the answer is yes."

"People must be running around in circles, absolutely crazy. That reminds me, before I go crazy myself—how can two things occupy the same place at the same time?"

"They can't."

"Ah, that's where you're wrong! During the shifts, I was stuck in the

center of a star or sun at one point with the white-hot rock pressing me in. I occupied the same spot that the lava or gas occupied."

"Did you? I should say otherwise. You didn't occupy the same space at the same time as something else. You occupied many spaces at the same time that the something else occupied many spaces."

A blank look crossed Stan's face. This was getting a little too deep.

Mérl blurted, "If you ever say one sentence that makes sense to me I'll—I'll hug and kiss you!"

"When the experiment is over, I'll recite to you all the facts that I know," Ruyter promised.

Stan said, "I'm getting a headache. That business about my occupying many spaces at the same time that something else occupied a lot of other spaces is too much for me. Oh, skip it. The more you try to explain it the more muddled I'll probably get. Here's another nut to crack. I hung in open space at one phase of the changes, and later I found a cave or chamber of some kind where cocoons were incubating. How did I get inside that cave without going through an opening? I certainly didn't pass through solid matter."

"You certainly did," Ruyter contradicted him. "In one sense, that is. You're still thinking along the conventional lines that you're accustomed to. If you continue on those lines, you'll have to face that fact that you passed through solid matter. From the larger viewpoint, the exact statement of events is relatively different."

"Remember, I kept the other five factors in a stasis, and only Space fluctuated. When you appeared in the cave, a cocoon or other object disappeared from the new space that you occupied, and the cocoon made its appearance somewhere else. The two spaces were interchanged, irrespective of what ma-



Stan blinked his eyes. "Sixteen minutes after five! I could have sworn it was only six minutes after."

The man in the doorway smiled queerly.



terial substance surrounded them. Is that clear?"

"No. Anyway, you said you kept Matter in the stasis, but if so, how could I or the cocoon change places? We're certainly matter, aren't we?"

RUYTER SIGHED. "I haven't attempted to give you the more abstract principles, conditions, and details involved. That would require a whole series of lecture courses. It is true that Matter was affected, to the extent that matter occupied a space that shifted."

"It sounds like transposing the yolks of a couple of eggs without breaking their shells."

"Exactly."

"I'm getting nowhere fast. Let's try another tack. A while ago, when you sent Time ahead, I didn't notice it happen. But I remember distinctly the episodes of this second experiment. How can you reconcile the two? Why should the first case leave a blank in my mind while the next produced clear impressions?"

Ruyter glanced at Stan with a trace of impatience. "It seems obvious that you haven't grasped the fundamentals, I must admit. There's a sharp distinction between them. In the first case, I projected Time but completely detached it from the other five Controls. In the second instance, I altered the structure of Space, but kept it in series with the other five, except that the five remained in a state of almost complete stasis while the warps and interchanges occurred."

"Then if you repeated the second test, but varied Time instead of Space, I would be conscious of the event?"

"Yes, but in a somewhat different manner," Ruyter agreed after a moment's hesitation.

"You don't seem very sure about it."

"I'm positive enough, but I have

some doubts as to how well you would comprehend the difference."

"I think I'd get it a whole lot better than the Space thing. And probably enjoy it more, too."

Merl interrupted with a sniff of disdain. "Enjoy it more? If you enjoyed the Space business you must have a mind of the sort that would be amused by cutting little babies up and putting sulphuric acid in your grandmother's soup. At that, barging around in Time ought to be fun. Imagine talking to my descendants of the year 10,000, or getting a look-in on Helen of Troy. Maybe her hair was red, but it wouldn't surprise me if the face that launched a thousand ships was crowned with thick wool and she turned out to have been as fat as a walrus."

"Bah!" Ruyter grunted. "Here you are at a demonstration of inventions that open unlimited possibilities for research, but your first concern is the color of somebody's hair."

"It had more effect on history than a good many generals and battles did. I'd like to talk to her."

"You couldn't."

"Why not? Oh, you mean because I wouldn't understand Greek, or whatever language she spoke?"

"No. Identical conditions do not prevail for all six of the basic factors. That is, you moved around in Space and heard and saw the inhabitants of your new surroundings. I can shift you around in Time, also; more precisely, I shift Time around you; but it would not be possible for you to talk with Helen of Troy or any one else of the past. You could see and observe her, but she could not see or observe you. And if I sent Time into the far future, you would also be an invisible, intangible, undetectable presence to future races and generations."

"Why?"

"Because you will have lived and died

your natural life by 2050 or 2075."

"But if you can send Time ahead or backward—"

"THAT'S the problem that I hesitated about explaining to Stan. Confusion arises from the fact that time has a number of different meanings. Time, applied to your life, means the period of years from your birth to your death. You cannot escape from those physical limitations. Time, applied to the universe, means the whole sweep of existence of all things that have been, that are, and that will be. Thought or intelligence can re-create past events or postulate future events, but only within the mind as a product of imagination. Please try to follow me closely.

"I use Time in a special sense, in conjunction with the other five Controls. I can unravel the universe, so to speak, restore it to the condition of two or three thousand years ago, but by so doing, I also eliminate you by devolution, because you will not have been born. Therefore, I adjust the Intelligence Control to permit your mental unity to retrogress to the far past or progress to the far future, while retaining your physical existence for you to resume when you return to here and now."

"Well, why can't you set all the Controls back or ahead?"

"I can. But if I set all the Controls for the period of Helen of Troy, the universe would instantly be returned to the position it then held. Modest civilization and all of us would vanish into the future. Centuries would pass, and in the Twentieth Century we would be born, in the Twenty-first I would perfect my inventions, and we would go through this same procedure all over again. Approximately, every twenty-five centuries the reversion would occur. Neither you nor I nor Stan would remember that the cycle had been completed before. It would repeat itself

endlessly, and the universe never would advance beyond this point."

Merl countered, "There's a flaw somewhere in your argument. A while ago you sent Time ahead by a couple of billion years."

"True. And for that reason alone, if none other, it is impossible for me to restore all the Controls to any given period of the past."

Stan interrupted Rayter with, "I still don't see why not. If you did, it would merely prove that you didn't send Time ahead as you claimed."

"Right. And in that case, none of the occurrences of the past hour has occurred, or will occur, nor will you ever have such an experience or any memory of such an experience. That is the inescapable penalty of knowledge, of attempting to change the past or prophesy the future. The knowledge and power are utterly worthless, for the knowledge destroys itself and the power defeats itself."

"Here's a practical example: I know that I shall die to-morrow when an automobile strikes and kills me. Therefore, I stay home all day, and consequently the automobile does not strike me or kill me. Therefore, I did not know that I would die to-morrow."

Both Stan and Merl lapsed into silence while they tried to grasp the meaning of Rayter's latest excursion into metaphysics. He paid no attention to their concentration. He moved over to the master switch that united and operated the six basic Controls. He was intent upon delicate adjustments and manipulations when Merl spoke up.

"It's hard for me to get your idea into my head. I guess the only way I can understand it will be to go back or forward in Time and see for myself how it works out. Why don't you fix it for, say, the year 5,000? That's far enough ahead for a first jump without its being so far ahead that I wouldn't know what went on."

A trace of asperity colored Rayter's answer. "My dear Miss Hudson, it happens that I, and not you, am directing the experiment. I don't intend to put on a show according to your whims and fancies. There's been little indication that you would achieve a fuller comprehension of my work if I gave you separate practical demonstrations. I could illustrate each point that I've made, but I don't see any reason to do so, since my chief concern is the enhancement of my own knowledge and not of yours."

"Wood! That's quite a dressing down!" she pouted.

"I speak without rancor. Surely it must be obvious to you that it would require days and weeks for me to explain to you all the possibilities in detail, and to illustrate each by appropriate readjustments of the six Controls. However, your wish is apt to find at least a partial realization during the next, and perhaps the final, operation."

"The one you mentioned at the outset?" asked Stan.

"Yes. I've given you the main principles involved, and have shown you how the six factors combine, and how one may be extended while the other five remain constant. Now I'm going to make the longest dive and try the boldest stroke. I'll start the Intelligence Control swinging like a pendulum. It will rapidly force the others to pick up its rhythm until their acceleration coincides with its drag, from which point mutual deceleration back to the present status should occur."

"Why do you say 'should' instead of 'will' occur?"

"I haven't tried this experiment before. I base my predictions upon the earlier tests, but I don't know positively what will ensue. Though I believe I can forecast with reasonable accuracy the developments and the results, it is foolhardy to make rash promises after

a few preliminaries. The consequences must provide their own truth."

"I don't know if I want to plunge blithely into something as vague as that," Merl objected. "Oh, well, I suppose I'll go for the cheese as promptly as before. But can't you give me at least a tiny notion of what to expect?"

"The swing of the first pendulum will distribute your intelligence horizontally, and as the five additional pendulums swing into rhythm they will distribute your intelligence vertically—"

"Oh, my poor head!" groaned Merl with a loud and profound sigh. "I don't know why I insisted on coming along with Stan. The number of difficult words that I've heard here are more than in my whole past life. I just don't understand your ideas, and they get more complex, and I understand them a whole lot less when you try to simplify them. Horizontal intelligence, indeed. What in the world would that be?"

"The swing of the Intelligence Control will, to some degree liberate, disintegrate, and distribute your intelligence, your identity, your conscious unity, horizontally among other living beings upon earth now, on the 28th of August, in the year 2005. But as the Life Control and the other four are pulled into harmony, your intelligence will decentralize further and merge vertically with other life of past time and future time. Does that help?"

"A little. It's about the first statement you've made that cleared up anything for me."

"Perhaps this will shed additional light. It's an unsatisfactory and inaccurate simile, but it may add to your comprehension. Think of Time as a ladder or the elevator in an apartment tower. Each floor represents the life of a different century. Let the twentieth floor represent the year 2005. Your liberated consciousness will float along that floor and encounter, merge with,

pass on to, other units of intelligence.

"But when all the pendulums begin swinging, you will not only drift upon the twentieth floor, you will also drop vertically to the ground floor and again broaden out there, or you will rise vertically to the hundredth floor and broaden out horizontally there."

"My goodness, when you want to, you do talk a language that I understand. If you'd spoken that way before——"

"It's only a rough image. Don't take it too literally, inasmuch as it's not wholly accurate. Ready?"

The scientist stood by the master switch, his hand extended toward a movable metal flange that was so delicately poised that a push would make it vibrate, pendulumwise, for hours. The speculative light in his eyes belied his bland, pink, and innocent gaze.

Merl looked curiously helpless, standing at the heart of the radiating segments of those fantastic, incredible machines, but she was cool enough and her enthusiasm made her radiate with fresh, naive beauty.

Stan felt perturbed. Dim, inchoate forebodings weighed on him. He tried not to let his external appearance betray the inner turmoil. So far as they saw him, he was deeply interested in the experience to come.

Ruyter stroked the metal flange!

V.

A THIN, intensifying, and imperious drone shrilled through the laboratory. It seemed to Stanley King as if a crowbar smashed his skull. He had a haze of impressions. Burdens oppressed him; yet he floated light as air. The walls and the machines blurred. Light became patched with darkness, and darkness fostered star streaks.

A wave of giddiness washed through him again and again. Then the laboratory must have exploded, for he felt

himself blown asunder and shivered, all parts of his body and mind wrenched apart, hurled in all directions.

The world went blank, but only for an instant. He saw again, looked up with affection at the tall, handsome figure of Stanley King standing on the dais. He was Merl; he had always been Merl; he would always be Merl, with all of Merl's moods, emotions, habits, gestures, attitudes, feelings; yet some elusive half memory troubled him. The thoughts, the instincts, the odd likes and dislikes that were part of Merl, upset him somehow. It was strange that he should be thinking so definitely from the viewpoint of the author, Stanley King, because Merl Hudson had always been and would always be female.

And like the click of a camera, he looked at Stanley King and Merl Hudson. He, Van Field Ruyter, the inventor of machines and the calculator of formulas in astrophysics whose power was inconceivable, had reached the crux of an experiment. He, the scientist, could approach his work with almost complete detachment, but he wondered how it would affect Stan and the woman companion whom Stan had brought. A personable young thing she was, rather sexy and forthright, but not without her good points. It bothered him that he could slip so easily into their individual attitudes. He had the tantalizing feeling that an important thought eluded him—if only he could recall what it was that——

"PLEASE, MADAM, I'm in somewhat of a hurry." The voice broke in on the daydreams of Jane Callahan. She started guiltily and finished wrapping the package. It was near closing time. Soon she could leave the linens counter of the XXX Department Store. What had made her forget her duties? Of course—the customer who bore a superficial resemblance to a writer she had once met at a party—Stanley King.

He had been rather short with her, ill-tempered, but meeting him was a thrill that she still talked and dreamed about. She didn't often meet interesting people. She finished wrapping the parcel. Odd that she could recall Stanley King so vividly years later, even the way he walked and talked. She mustn't let the heat overcome her—hysteria—why did she keep seeing pages of manuscript, she who had never seen his handwriting? But she was fainting—

MALCOLM S. BLAINE, director of the National Television Corporation, snapped out of it with a start. Mustn't nap at his desk. He'd been dreaming of a sales clerk, visualizing the girl's daily life and routine. Why that particular clerk, who wasn't like any woman he'd ever met? Curious, damned curious, the way the image lingered vividly in his mind. And something about a scientist, a blond beauty, a playwright—what was the latter's name? He fingered his tie, and curtly ordered his secretary, "Get the contract renewal for Stanley King out of the file and tear it up."

"Tear it up? Why, it was made out only yesterday."

"Do as I say."

Blaine fidgeted and squirmed. He didn't seem able to keep a grip on himself. Must be the damned heat. Those images, visions of other people's lives, memories that didn't belong to him—what the devil was the matter? He was Malcolm S. Blaine, wasn't he? Or was he? He had never liked Stan King, but now he found himself intensely disliking Malcolm S. Blaine. But he was Blaine—he couldn't dislike himself—He watched his secretary take the contract, saw her begin to tear it in half—

"Why are you doing that? Is that what I told you to do? Sorry. Must have made a mistake. Draw up a new contract and double his salary."

"But the board won't approve—"

"To hell with the board. Do as I say."

Blaine scowled across his desk. He was jumbled inside, thinking thoughts that didn't belong to him, issuing commands that contradicted each other. He steadied himself, hands on the desk, for he felt consciousness start sliding away from him—

THE PRIVATE tutor to his royal majesty's children took the drawing that the youngest, five years old, had just completed. Puzzlement showed in his eyes. "This is not what I asked you to draw. I do not understand the picture. What does it represent? Whom do you mean?"

"It is the picture of Malcolm Blaine, an American. Mr. Blaine has charge of a television company. I would like to do what he does when I grow up."

"But—but—where did you hear of this man? He lives in the western hemisphere. He is a man. You are a girl. You cannot live such a life when you grow older. You are of royal descent. You must remain in his majesty's household in the imperial palace of the Maharaja of Hyderabad. Who told you about that man?"

"No one told me. I have always known about him."

"That is impossible. You must forget him."

"Then I want to be Stanley King."

"Stanley King? Who is he?"

"And lots of people will hear my broadcasts and see my plays. I would like that. He is an American and he lives in New York City."

"Where did you find these names? Who told you about them? I do not know them. I have never heard of them until now."

The child insisted, "Nobody told me. I just know about them. I always knew. They came to me."

The child smiled. The tutor, despite the fatalism that underlay his philosophy, stood in awe of the wisdom, the infinite knowledge shining from those young eyes—

GENERAL CHIANG, traveling incognito on the Shanghai express, continued talking with the merchant who sat next to him. "It is my conviction that only one person in all China is strong enough to unite the different factions. I mean, of course, Malcolm S. Blaine."

The merchant nodded vigorously. "The gods have blessed you with true vision and a voice of silver. Who is it that speaks so wisely?"

"The youngest-born of the Maharaja of Hyderabad," said General Chiang. "And whom have I the honor of addressing?"

"Stanley King is your humble disciple," answered the merchant.

Each looked at the other, consternation growing upon their countenances and—

AS she stepped from the bath and put the towel aside, Jane Estelle prepared to admire herself in the full-length mirror. She was in love with her own beauty, the perfect figure and flawless face that had helped her become one of the most highly paid of motion picture actresses. The fact that she knew nothing about how to act, as the critics had unkindly and repeatedly written, made no difference to her. She looked ravishing on the screen, and millions paid to see her musical romances and style parades.

Jane Estelle considered it not only her right, but her duty to perform the daily ritual of approving her physical beauty. She was only five feet five, but proportioned in exquisite detail from her soft wealth of hair as richly colored as polished mahogany to her trim ankles

and feet. She loved to dwell upon her facial charms, the curve and contours of her beautiful body. Nature had bestowed lavish attractions upon her, but Jane considered that she herself was solely responsible for her beauty. There was very little room in Jane's head for any other thought.

She stood in front of the mirror, and as she did so, vast floodgates seemed to open up inside her. The lives of all the millions of her admirers became part of her consciousness, and she partook of theirs. The mirror, when Jane Estelle faced it, reflected a male figure, the figure of Stanley King—

VI.

The Life Control began to move, swinging to adopt rhythmic accord with the Intelligence Control.

Peter, the parrot, cocked his head aside, cackled shrilly. "Nobody home! Nobody home! Stanley King and Merl Hudson! Come back! Come back! You forgot to feed me, Stanley King!"

Peter, the parrot, was surprised at himself. He had not used such language before. He knew the name of his master, but the peremptory tone he had developed excited him. Perhaps he was the master and Stanley King the parrot. He clawed nervously around his cage. He was almost the wisest parrot that ever lived, if only he could work out a certain thought that kept slipping away from him. And he would develop the thought completely, except for the confining cage. Once he escaped from it, and retreated to the woods to perch upon a huge oak that he remembered well—

With dawning awareness of itself and its surroundings, a giant oak that grew in the Palisades overlooking Manhattan stirred out of its long repose. It had been living, but unconscious, for a

hundred years. It awakened to realization of its identity and to knowledge of the mighty roots with which it had burrowed deep beneath the soil. In its waking it shivered, and its boughs shook with the force of a gale there in the peace and quiet of twilight. It struggled to move, but only the great trunk swayed, and the roots clung to the ground. The oak wanted to fly, like a bird. Strange, that it was remembering incidents and scenes, since the long slumber precluded memory. Yet the oak drew strengthening and varied recollections—of a tall playwright who used to come out and sit in its shade to work—memory of a play in progress and of Stanley King—the oak was part of the writer and of the writer's work, and Stanley King was part of the oak's heritage—the tree racked itself with eerie impotence. A confused double impression would not clarify into two distinct images. Perhaps Stanley King's thoughts occupied the oak, and the oak's rudimentary awareness had usurped the intelligence in Stanley King's body. But darkness descended—

His wings buzzed. He was droning past a giant oak tree and felt a strong pull toward it. Whatever the destination for which the bee had been heading, he did not know, for that bit of purpose had gone with the bee's vital unity, in whatever life form it now inhabited.

He looked upon a queerly changed world, a world that the facets of the bee's eyes reflected with colors never beheld by human eyes, a world of extraordinarily more varied odors and sounds. He heard a great walk upon a leaf, and saw pollen and microscopic dust floating everywhere, and smelled the acrid exhalation of a poison-ivy plant a hundred feet beyond the oak. He saw a young couple walking across the fields, and buzzed toward them. They were the aspect of humanity from which he had been discarded.

Who was he? The author? The oak? The parrot? Or other creatures and other human beings? Dismay filled him, and wonder, but not terror; no time for terror, as he attempted to cope with the ever-increasing alterations of life and intelligence.

His little, fuzzy body drove toward the man and the woman, but he was aware of the disjointed and eccentric convulsions that seized them. They must be human in form only, their conscious integrity scattered elsewhere, and some one else's or something else's captured by their human frames—

He drifted upon a swiftly running stream that coursed among other fluids and substances, a stream predominantly dark and red. His form was a spiral. He had become a micro-organic bacterium of a type that he did not recall. Recall? What should he recall? Had he not always been a parasite, a bacterium, during the whole of his existence? An invisible fog cut him off from a reality where lay a different world, a world of sunshine and air and great beings who walked erect, like the body that nourished him now.

A more definite fog; a tangible menace loomed in his path. The corpuscle swept straight for him with unerring accuracy. It, too, was animated by a subsidiary form of life. It had a function to perform. Though a scavenger itself to some extent, the corpuscle had an avid and ruthless taste for such scavengers as the wriggling spiral. He struggled desperately to escape from it, but it caught up with him swiftly, encompassed him, began to ingest and devour him—

He drifted in a different medium, blue-green and warm. Tropical waters, to judge by the flaming sun overhead, and the coral growths below, and the bizarre marine life.

He loathed his new life form, a baby squid, an octopus. The small, semi-



Stan's chaotic impressions focused upon Merl, lying limp and deathly white.

transparent tentacles trailed below him, freckled with cups and suckers. He stirred, and the arms curled through patterns of motion. He turned his attention to the fantastic environment around him. It contained teeming, swarming myriads, an immense and amazing variety. The molluscs, the shellfish, algae, curious submarine vegetation, larvae, brilliantly colored fish, organisms on the surface and in suspension and rising lazily off the bed. The growth-incrusted ribs of an ancient vessel lay down there, with the corroded corner of a chest that might contain fabulous treasure or water-soaked junk. He would never know which.

He propelled himself suddenly, attempting to scuttle away under the reflex from some basic instinct. Too late. A large fish, a hungry fish, sped toward him. He did not recognize the species. Monstrously ugly, more than hideous, it had three double sets of vicious teeth. Knobs, warts, and bulbous protrusions covered it. Its maw and head comprised nearly half of its gray-black length. The teeth spread to engulf him in one snap. To die such an ignominious death evoked deep resentment rather than fear—

His new perspective bewildered him. It took time for him to determine his relative position. A closed darkness shrouded him; a vast, far immensity of open spaces linked by gigantic solids. He had passed into a filtrable virus, one of the submicroscopic organisms that scientists had identified and isolated only since the 1930s.

He rested in the darkness upon whatever lay underneath. He was full-grown, a life form of stature and size from the viewpoint of the virus. Above him and beyond him spread the titanic distances and vistas, comparable to a galaxy as known to man, but this galaxy was a man as known to him. And below him lay his own world, his own submicroscopic planet—what end was there

to diminishing smallness or to enlarging space? The more he reached the extremes of knowledge, the farther the new horizons. The closer he got to beginnings and endings, the more they receded into immensely greater distance and remotely smaller size.

VII.

The Time Control began to swing, backward at first, drawn by the tug of the Intelligence and Life Controls, its pace quickening toward alignment with these other two and toward rhythmic unity with them.

As it moved, the intellectual identity of Stanley King made further encroachments.

His individual pattern had already dispersed among the minds of other human beings, his contemporaries. It had scattered throughout the life forms of earth, ranging from worm and ant, from fish and amphibian, from fungus and tree, to the mammals and the vertebrates, the flying creatures, the bacteria, fruits and flowers and the wild grasses of the plains, countless men and women and children.

But these mutations took place in the year 2005 A. D. The Time Control started the backward swing of its cycle to the infinite past and forward to the infinite future, in conjunction with the first two Controls. Dislocated from personal identity, dislocated from the human life form, Stanley King became dislocated from the years of his mortality.

THE Fourth Century B. C. Paxitres of Athens hewed at the rosy-white marble chipping and shaping it into the form that he dreamed. He had designed the statute to represent Aphrodite at the emergence, as she burst from the sea foam. But the progress of the sculpture dissatisfied him this morning. He

had lost his pure conception. The character of the statue altered subtly as he worked. He found the base changing under his hands from sea waves to the fertile earth, and the figure to a bacchante.

The model—a woman called Phryne, had discarded the chiton and held tirelessly for hours the exacting pose he demanded. She was a famous beauty, of the full-bodied massiveness that the original sculpture required. But that same type of beauty could be molded as easily, more easily into the bacchante.

In a sudden, uncontrollable frenzy, he began smashing the statue into bits. He glared wildly at the stand where Phryne faced him—not Phryne now, but a different woman, a stranger, of a later time and race, of romantic rather than classic features, and much more slender in body. Yet he knew that woman—or did he? She was Merl Hudson, or was she Jane Estelle?

Fantastic thoughts and visions poured into him—of machines that winged across the sky—and cities of skyscraping towers—explosions that tore holes in the ground—great bridges and gleaming rails upon land; liners upon the sea—and a name running across his mind—Stanley King. Why not? Hadn't Athens and Greece passed into history long ago, and Praxiteles and Phryne returned to the earth that bore them? He staggered drunkenly, flung his hands to his eyes—

THE YEAR 5,000 A. D. He had become one of the Kotoleys. The Kotoleys, a strange, shy little animal native to Mercury, had been brought back to Earth in the Forth Century and cross-bred with dogs. The new hybrid, a domesticated pet, could speak and think the language of Earth, while still retaining the lore of Venus.

English had long formed the universal speech. Only a single race in-

habited the planet. The world-wide type now stood nearly seven feet tall, deeply golden of skin, richly varied in the coloration of hair and eyes, and with magnificently healthy physique. The scientists had not yet completely eradicated disease. Previously unknown epidemics such as the Black Mould had followed wars, or broken out when the space explorers contracted them on other planets and carried them to Earth. But these afflictions made an always rarer and constantly less virulent appearance.

His master, Pilot Venn of the Space Patrol, ruffled the Kotoley's head. "Two more days, Flip, and we'll walk on terra firma again! What do you say to that?"

Flip said, "Three months in space is long enough."

"Too long. But exciting. And it makes the three months on land more exciting, too, doesn't it?"

Flip bristled for answer and rose stiff-legged. For his master had changed, ceased to be Pilot Venn, became Van Field Ruyter, who died in the Twenty-first Century. But what was wrong with that? Stanley King formed part of Flip, and he belonged to the Twenty-first Century. "Venn—I mean Ruyter—" Kotoley growled—

THE YEAR 50,000 B. C. The saber-tooth tiger crouched behind a ledge on the frozen tundra. Ravenously hungry, it had not eaten for almost two days. Yet it watched its food walk at a distance but made no effort to kill. It waited patiently, for it could not win against even that small herd of mammoths. Sooner or later one of the great, shaggy creatures would drift aside, and then the battle would rage between the almost equally matched saber-tooth and mammoth.

The giant tiger watched while the gray, overcast day waned. It heard a sound. It tensed, listening. Faint steps pattered along the trail that ran under-

neath the ledge. A band of creatures walking on two legs came into view. They had thick, matted hair, and beeling brows. Wild-faced, they wore rude skins for clothing and carried a motley assortment of clubs, sharp stakes, and stone-tipped spears.

Saber-tooth did not fear them. He would kill them one by one or battle them all. But he watched them pass, waited till a plump female stood below him. He launched himself with a mighty roar. The hurtling tiger crashed upon its prey.

Sick, terrified remorse swept the tiger. What had he done, he who was partly Stanley King? He remembered now—curious that he could have forgotten—and it was not primitive woman, but Merl Hudson of the Twenty-first Century who crumpled before the onslaught then—

THE YEAR 500,000 A. D. Man had disappeared from the planet Earth and no longer occupied a position anywhere in the evolution of the universe. Yet many traces of him remained, and his influence persisted.

Hundreds of thousands of years earlier, the biologists, by prenatal plastics; the chemists, using control of the genes; the physicists, employing various types of radiational and penetrative rays, had deliberately created many new species of man. The single race of the Fifth Century broadened out upon numerous byways: Flying Man, midgesized and with true wings. Three-eyed Man, having an extra eye at the base of the skull. Four-armed Man, useful in the mechanical industries. Giant Man, a strain of colossal, good-humored, docile beings over twenty feet tall, with Herculean strength. Superman, the normal and standard type, of which both sexes possessed godlike beauty, flawless stature, and enjoyed a life span averaging one thousand years. Translucent

Man, who bore more vivid, brilliant, and exotic colorations than the tropical birds and fish.

But interplanetary wars had weakened the race. Invasions from outer space finished the destruction. Man survived on Saturn only through hybrid amalgamation with the conquerors. He vanished from the surface of Earth where sulphuric gases had poisoned the atmosphere for him but made it safe for the invaders. The invaders, who came from the region of Virgo, possessed a unique life form. Partly liquid and partly gaseous in nature, each unit formed a part of the racial whole. When an individual died, the race re-absorbed it and issued a new individual wherever that unit was most needed. The race spread over the continental land masses.

The only human survivors of the catastrophe had occupied an undersea experiment station near the South Pole. With oxygen purifiers and forced-growth apparatus, they preserved a precarious existence. As centuries passed, they gradually took to the sea, developed webbed extremities, and adapted their breathing so that their skin absorbed oxygen from the waters. Upon the ocean bottoms, Marine Man multiplied and flourished, but degenerated in the cultural scale, so that only dim legends and ghostly dreams told of fabulous things upon lands above the surface.

Mouh had heard of these old, forgotten things, and as he finished grazing upon sea leaves and succulent bivalves, his dark, sealike body heaved for the surface. Often one of Mouh's companions had felt the same urge and departed upon the same mission, but none had ever returned. Mouh was curious. The dormant race had begun to develop instincts of exploration and investigation.

He darted higher, and higher, and felt the beginnings of great changes within him. Panicky, he tried to turn, but the changes continued. He could never re-

turn to his people. The constantly lessening pressure had caused his body, attuned to greater pressures and depths, to expand. Mough struggled on, floating up to the surface with little further effort. He was beyond effort.

But what lay above? A gull skimmed low, in frightened circles. What ailed it? Did he know it? Stanley King felt a pull of kinship toward the drooping bird, but the pull became an explosion tearing open the body of Mough—

THE YEAR 100,000,000 B. C. A sense of doom, a foreboding of inescapable menace pressed him. His thoughts ranged through a wild chaos, prophetic of two-legged creatures that did not exist, and cities to house them, and other worlds and farther stars, and the dim, receding aeons of a later time, when he and his kind would have perished and left only their fossilized bones.

His kind? Was he Stanley King or Merl Hudson or Van Field Ruyter or General Chiang or Mough or part of all of them, and all others part of him? He was a brontosaurus, a huge, ponderous bulk of a land reptile in the world's intermediate life. Giant palms and weirdly boled hardwood trees pushed up from the rank soil. The birds had made their appearance in the evolutionary scale, together with mammals. The age of the huge land reptiles was passing.

How did he know all this? How could he know, he of the tiny brain in a vast body?

He moved with earth-shaking tread. Great rumbling, roaring voices sent concussions aboard that split the air with a continuous thunder. Brontosaurus, plesiosaurus, diplodocus, everywhere roamed the mighty lords of creation. And a pterodactyl swooping down, but he had no fear of its ferocious teeth—except that his weighty limbs did not move as he expected, and when he saw them sink deeper into the quagmire

that would never release him, his guttural roar reverberated among the palms and the hanging mosses, the hundred-foot ferns and the coniferous boles, for he must not, could not, go down to death in a Cretaceous swamp—

THE YEAR 1,000,000,000 A. D. The solar system had altered profoundly. The tidal drag had brought the Moon and Earth together millions of years before, with a collision that made them fuse, flame, and create a new star. The star circled around the old, dying Sun which, as it cooled and solidified under the light of the new star, developed its first species of life forms, simple forms radically different from the beginnings upon the former planet Earth. Pluto had been torn away from the system by a wandering binary star.

He was a nitrogenized metallic spore, clinging to the peak of a jagged, titanic range of mountains fifty miles high, composed of volcanic magma, and overhanging an acid sea. He was the life primeval, from which in billions of years of later time would arise the deathless, indestructible, purely intellectual and mathematical, metallic beings who would shape the destiny of the cosmos for the inheritance of still more complex life forms of trillions of still later years of ultratime.

The nitrogenized metallic spore shook with the force of thoughts that suddenly surged through it. And through it, too, echoing all that vast distance down the remote corridors of time, beat a name, another name—another Stanley King, Merl Hudson, Mough—forgotten and vanished bits of cosmic waste—no, not forgotten, for the black spore remembered—

THE YEAR 1,500,000,000 B. C. In the pre-Cambrian, primordial dawn of earth life, a tiny black crustacean crawled on the slime that had emerged

from the almost world-enshrouding seas. Steam and hot gases saturated the air; the ocean boiled and hissed; volcanos flamed; convulsions of the young planet had begun to form its crust.

Upon the waters, turbulent and murky, grew algae, minute specks of green and brown. The superdense atmosphere permitted only a faint, yellowish glow to seep through from the sun. But under that steaming twilight, the crustacean crawled at the marshy shore of the ocean and devoured the algae that drifted along.

It lived a simple, brief existence. It blindly followed the requirements of itself and its environment—until something blasted it from all its moorings. Fragmentary intelligence and fragmentary life forms from sections of future time rioted through it, and there were long gaps between the sections of time, blank stretches of entire millennia that it could not bridge. And the ghost of a name, of many names, flickered across its awareness—Stanley King, Mouh, Kotokey, Jane Estelle, Praxiteles, Ruyter, mammoth, oak, filtrable virus, General Chiang, the race unit, Marine Man, metallic spore—

VIII.

The Intelligence Control reached its full beat, with the Life and Time Controls adapting themselves to its pace.

The Space Control began moving, swung into rhythm, then the Matter and Energy Controls, the six basic factors from which the universe evolved, and which evolved the universe.

And as the cross beats of those six pendulums interacted, they carried Stanley King, Merl Hudson, and Van Field Ruyter to the ultimate scope of all imaginable experience and the unlimited finality of all possible knowledge.

For the six basic Controls, in addi-

tion to the fluctuations and alterations that they had already wrought, accomplished far more than Ruyter had dreamed.

In his period, the laws of probability, or chance, or possibility; the theories of inevitable destiny and unrestricted free choice, had received due credit from the more advanced scientists.

There was always the possibility that water would freeze when placed over a flame. There existed the probability that since Ruyter lived on August 28th, he would continue to live on the following day, September 1st. By chance, a lottery ticket holder might win a fortune. Inevitable destiny forced Van Field Ruyter to devise the machines that controlled the six basic factors. Free choice entitled him to destroy them if he wished, or to operate them, to view the results alone, or to invite participation by Stan King.

This group, the subsidiary factor of uncertainty, had been created by, and had accompanied, the development of the six basic factors, the universe. But under the influence of the six cross-swinging pendulums before they reached rhythmic harmony, the principle of potential realization became the principle of actual, necessary, compulsory realization. All things need not occur in a universe that evolved from the six factors. But all things must occur when the six factors cut across each other's coöperative evolution.

IN THE YEAR 2005 A. D., the intelligences Stanley King, Merl Hudson, and Van Field Ruyter met for a common purpose. Stanley King's life form was that of a protozoan from the seas of Earth's commencement; Merl the full-bodied Phryne; Ruyter a part of the race unit from Virgo. The space and matter that they occupied—not Earth, but the planetoid Galyolos in the system of the Moon, around which spun

three suns and seventeen planetoids. The matter and energy consisted of the elements from -12 to +60, and from +92 to +112.

In the space through which Earth had traveled on one August 28, 2005, there existed upon this August 28, 2005, twin liquid planets like gigantic drops of water. They contained no solids whatsoever. They emitted a radiant energy that continually stripped away their external surface, their outer shell. But inside the planets flourished myriads of transparent life forms of the order of intelligence possessed by the metallic creatures during the trillions of years of later time.

Upon the matter and energy that comprised Earth during another year 2005, only three continental land masses existed, and the classical Hellenic civilization occupied all three. But the ancient Greeks, though of human life form, burrowed underground, for their intelligence consisted of the order of rudimentary worms that thrived upon a moon of Orion during billions of years of earlier time.

The universe, from the same beginnings, built up through every possible combination and variation of Time, Space, Matter, Energy, Life, and Intelligence. It would go on forever, building up and developing anew, returning to the same origins and evolving through different cosmic patterns, commencing with the same factors and constructing, producing, realizing all possible extensions of those factors.

Eventually, when all the patterns had been exhausted, or before all the patterns came into existence, an occasion would arrive and must arrive when the factors duplicated identically a previous pattern. Then, and only then, with the six Controls restored to their previous harmony, could Stanley King and Merl Hudson and Van Field Ruyter resume their existence upon the planet

Earth in the year 2005 A. D. And until then—

HE CONSTRICTED, diminished, plunged downward through ever smaller, ever-lessening gulfs below and beyond subatomic and subcellular universes. He expanded and swept outward through ever-enlarging and ever-expanding space with all the millions of galaxies and constellations of the universe merely a part of him.

He extended backward and forward throughout the whole of the vast, innumerable paths and corridors of time, earlier time and middle time and later time and hypertime.

He drifted through the unlimited variations of matter and energy, as they existed from infra-atomic radiations and cosmic rays to cosmic dust and comets and stars and planets, fire and flame, light and explosion, aurora, nebula, spark, electricity, and lightning.

He lived all possible life forms during the entirety of space, time, matter and energy. Terrestrial life and non-terrestrial life. Life human, subhuman, and superhuman. Aquatic life, liquid life, metallic life. Life that was ultra-microscopic and extra-galactic. Life liquid, gaseous, vegetational, animal, bird, fish, insect, germ, spore, unicellular, multicellular; life creeping, walking, swimming, floating, flying, flowing; life liquid and mobile and variable; life rigid and fixed and stationary.

He partook of all orders of intelligence and all viewpoints and perspectives, from the humblest awareness of the primary protoplasm to the noble and abstract concepts of the indestructible metallic beings of hypertime.

He knew the unknowable, conceived the inconceivable, realized the impossible. He experienced all wars, struggles, and invasions, conquests and battles and deaths. He spoke all the languages, tongues, and methods of communication, knew all the books and rec-

ords in all of them. He saw and utilized all the inventions, products, machines, works, structures, and achievements of all life everywhere.

The raptures, the passions, the emotions, the griefs and regrets, intolerable frustration and overwhelming ecstasy were his; the dumb, unquestioning existence of the algae and the infinitely complex intellectual furies of the metallic creatures.

He passed into scientist and artist, worker and imbecile, outcast and cripple, slave and genius, explorer and explored, creator and created, conqueror and victim, evil and good, beauty and ugliness, horror and splendor.

He was the part and the whole, the beginning and the end, inside of and outside of all possible things, all conceivable experience, all origin and finality, all mutation and change, all single and compound states, conditions and combinations of Time, Space, Matter, Energy, Life, and Intelligence—

IX.

ONCE AGAIN Van Field Ruyter stood by the master switch, his hand extended toward a movable metal flange

that was delicately poised. A push would make it vibrate, pendulumwise, for hours. The speculative light in his eyes belied his bland, pink, and innocent face. Merl looked curiously helpless, standing at the heart of the radiating segments of those fantastic, incredible machines, but she seemed cool enough, and her enthusiasm made her radiant, lent freshness and naïveté to her beauty.

Stan felt perturbed, uneasy. He did not know why. Dim, inchoate forebodings weighed heavily upon him. Some unformulated thought or warning or inner conviction that the experiment should stop would not come to the fore of his consciousness. He was strangely and utterly weary, weary of knowledge and of knowing. But he could not quite recall what baffled him, and the tantalizing memory danced beyond his comprehension. He could think of no reason to deter the scientist from his experiment.

Ruyter stroked the metal flange of the master switch. The Intelligence Control moved on the first swing of the rhythm that would gradually force the other five pendulums into cross beats and ultimate restoration of unity—

Another story by Donald Wandrei appears in the October issue of Astounding.

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The House That Walked

*Vibration handled by a master scientist
can produce illusion clear enough to
drive men mad!*

by Dave Barnes

IT WAS A HOUSE.

Patrolman Carson looked at it thoughtfully. The house was old, gaunt, squatting, black and forlorn by itself in the weed-choked lot. Its style of architecture was that of fifty years ago. With pillared portico, and steep roof, and sharp gables thrusting up into the cold clearness of the fall night.

But that wasn't what made Carson gnaw his lip and scowl in puzzlement. He had walked his beat along here for three years now, and he had never seen this house before. The lot it occupied had been empty—a playground for neighborhood kids, a dump for tin cans and old-car parts. Rubbish was even now piled around the house, adding to its desolate, forgotten air.

"House movers," Carson said firmly, bracing himself with the prosaic explanation. And yet—Where was the moving equipment? The ponderous wheels? The wood blocks? There wasn't a sign of a heavy weight having been rolled over the soft loam of the lot.

Swinging his nightstick on one forefinger by its laced cord, Carson walked closer. He could see now that there was a faint flicker of yellow light wavering behind one window.

"Beams hiding out," muttered Carson. He picked his way through the rubbish, found an old axle with one wheel attached. He stepped up on the slanting perch, balanced himself, peered in.

He was looking into an old-fashioned room cluttered with an ungainly horse-hair sofa, ornately carved chairs, bric-a-brac. Seven white candles in a brass candelabra burned on the massive walnut center table. There was a little old parlor organ; an enormous hanging lamp, unlighted; and a pair of legs with the feet pointing awkwardly up, protruded from the shadows underneath the table.

Carson was teetering too much to risk rapping on the window, but he whistled and yelled at the man inside. The feet remained in their queerly awkward position.

"A drunk," decided Carson, and felt better. He knew how to handle drunks. But still it wasn't right. The house, where none had been before—deserted. No signs of life. Just the house sitting there old and alone and tired with its shabby air and out-moded furniture—and the man lying on the floor.

"Aw, hell!" Carson chided himself sheepishly. "Me gettin' the shivers." He grinned.

He went around to the front of the house and made for the worn front steps. He glanced up, then drew back sharply with a little shudder. The upper windows were startlingly like lidless eyes, hooded by the deep, shadowed eaves, watching him.

Carson kicked himself mentally; this was no way for a grown man to act.

An officer of the law. It was silly. But perhaps he'd better report in before entering the house. Get instructions. He retraced his way to the sidewalk, looked up and down the street, calculating the distance to the nearest call box. He turned to make note of the address on the strange house, then stared, mouth agape and eyes starting from his head.

The house was gone!

CARSON sat on the curb by the call box, head in his hands, rocking gently to and fro. The radio sedan, dark and gleaming, swooped up to a halt beside the stricken officer. The engine purred a gentle accompaniment to the slamming of a door, the scrape of feet. Detective Lieutenant Mallory said sharply: "Carson! On your feet!"

Carson groped his way blindly erect and saluted. Mallory felt a sense of shock at sight of his subordinate's ravaged face. "Drinking on duty, Carson? This hasn't happened before."

Carson blubbered. "No, sir. No, sir. If it was only liquor, sir, it wouldn't be so bad. But it ain't that at all. I seen that house, Lieutenant, with my own eyes. As close as I see you now." He peered crazily into Mallory's face, gripping the older man's arms in a frenzy. "And then, just like that, it wasn't there any more!" Perspiration glistened on his face.

Mallory felt embarrassed. "Sure, sure," he soothed. "We got your report. There was a strange house with a drunk in it, only there wasn't any house—— Look, it's nothing but overwork, Carson. Nerves, probably. You come and ride in with me. Get something hot inside you. Have the doc go over——"

"Calling Car 31. Car 31. Go to 1133 West Forty-fifth. See a woman about a howling dog——" It was the deliberate voice of the police announcer. "Calling Car 61-Y. Car 61-Y. At Wedgewood and Tenth Streets. Wedge-

wood and Tenth. A man in a vacant house. Investigate this house. Neighbors report that it was not there until a few moments ago. Calling Car 31——" Mallory reached in through the car window and snapped off the radio switch by the steering column.

Silence, then, heavy with unsaid things. Mallory glanced at Carson. The beat man was wiping his forehead with a big blue handkerchief.

"Thank Heaven!" he said in a wavering voice.

Mallory clipped, "Sorry, Carson. Thought you were really a mental case for a minute there. Get in; we're going places. And you are the only officer so far who can identify this—this thing that moves——"

Mallory sent the police car hurtling through the darkened streets, a huge, thunderous bullet tunneling the wind and the gloom. It slipped through cross-town traffic like a phantom, heeled over like a storm-struck yacht as it swirled around corners into the quiet streets of a forgotten, sedate residential section.

"Stop!" Carson was screaming into Mallory's ear, yanking on his sleeve. "Stop the car!"

The sedan bucked and jumped like a live thing. Rubber squealed. They slowed from side to side, then jarred to a halt at the curb. Mallory asked the question with his eyes.

"It was the house!" cried Carson, waving back down the street. "I couldn't miss it, Lieutenant. I tell you, it was the house!"

Mallory slipped the gear into reverse and the car cautiously prowled backward, hugging the curb. It was a very old district, with narrow, high houses, many with brownstone fronts. And in the middle of the block, half hidden by drooping pepper trees, sat the ancient house, substantial and quiet, and somehow sad in the night.

The two men piled out and stood on the pavement, looking.

Mallory growled: "Can't see anything in that old mausoleum to get excited about. If it's the same one, it sure made a quick trip from Tenth and Wedgewood. But it can't be. That place looks as if it'd been right here for a century."

BUT no clenching of his capable fists, no blustering aloud, could still the ghostly fingers of unease that crawled up and down Mallory's spine. He looked to either side. The place on the left had a light burning in the rear. Mallory looked undecided a moment, then went up and pushed the bell with his bony finger. There were sounds of movement in the rear, footsteps, and presently the door opened. A man of perhaps sixty-five looked out.

"Yes? What is it?"

Mallory felt foolish. The warm odors of cooking, the homely buzz of an electric current—these things brought him down to earth. "I'm sorry to call at such an hour"—he showed his badge—"but there seems to be some confusion about the house next door. I wonder if—"

The elderly man gave Mallory a funny look, then stepped out onto the porch to look. He appeared astonished. "That's odd," he muttered. "That's damned odd!"

Mallory began again. "What I mean is: has that house been there very long?"

The man stared at Mallory again. Finally, "To the best of my knowledge, sir, I have never seen that house before in my life. And I have lived here for many years."

Mallory exclaimed in satisfaction, savagely. The elderly man sensed something out of the way, asked if he might accompany the police on their inspection.

Mallory agreed, and stepped inside while the man put on a coat. In the better light, the man's face was familiar to him. His name was John Kinnett,

former chief of research with Continental Power. He introduced himself, and they went outside once more. Carson was glaring at the house like a man in a trance.

But the house, with its unsteady gleam of witches' fire at one window, had not moved.

The three men watched for a while, then Mallory and Carson started up the steps.

Kinnett said nervously, "If—if you don't mind, I'll wait out here," and Carson looked as if he wished he could stay with Kinnett.

The front door was unlatched. It yawned slowly when Carson rapped on it. There was no answer. The house was silent.

Carson's flashlight moved around the hall. An old-fashioned hatrack, with glossy top hat, overcoat and linen duster on it, stood beside the door. An umbrella stand lurked in a far corner. Worn carpets, reaching the walls, were tacked down to the floor.

They went into the next room, straining to see in the dim light from the seven candles. The circle of illumination from Carson's flash slid across the floor, found the man lying there. It crawled along his legs, up his body to his head. Carson's breath hissed between his teeth.

"Damn!" said Mallory.

The head was a bloody pulp.

Mallory peered more closely at the body. The man couldn't be alive, not with his brains all over the carpet. But his clothes were all wrong. The stock around his neck; the tight trousers; the heavy watch chain across his vest; the loose cut of the ancient four-button coat; the cloth-topped shoes—all were long outdated by fashion. Why, they hadn't worn stuff like that for fifty years. Mallory had seen the same styles in the movies.

Mallory saw something else, and knelt down. It was a bloody hand print on

the floor beside the man. A spread hand print with one of the fingers—the little one—missing. Mallory twisted to beckon Carson, to have him show his light on the print. His mouth opened, then dropped as he caught the faint glimpse of moving shadow spreading monstrously behind the patrolman.

There was a faint popping noise, a rush of sweetish air, and the room spun with sick pain inside Mallory's eyeballs. His shout was stifled in his throat. The walls dissolved, vanished in a swirl of star-shot blackness, and Mallory drowned in oblivion.

MALLORY SAT UP, shook his head. The rise and fall of a siren's wail matched the buzzing in his ears. He was bounced around as the ambulance crossed street-car tracks. Carson was sitting on the cushioned seat across from him.

Mallory asked: "How do you feel, Carson?"

"Swell," said Carson, trembling. "I feel swell."

An interne looked around at the sound of voices. Mallory snapped, "Take us to the station. No need to monkey around the receiving hospital. We're all right."

The interne started to debate the issue, then reconsidered and tapped the glass panel behind the driver's compartment. "Police station!" he yelled.

Mallory was out of the ambulance on the run before it stopped rolling in front of the station. He ran around to the sidewalk, and bumped into the elderly Mr. Kinnett, just climbing out of the radio car, which he had parked ahead of the ambulance.

"Kinnett!" blurted Mallory. "What happened? Was it you called the ambulance?"

Kinnett's fingers were not under control. They quivered. "Yes. Yes. I waited outside for you. The telephone rang. I ran in to answer it. And when

I got outside again"—the older man peered closely at Mallory with flickering little lights in his eyes—"when I got outside again, the house next door was gone! You were lying, both of you, in the empty lot."

He glared at Mallory as if expecting to be disbelieved, defying any one to call him insane. But Mallory was long past calling any one crazy. He said quietly: "And then?"

Kinnett calmed somewhat. "Why, I called for the ambulance. But you were looking so white and still there in the dirt—I'm no doctor, and I couldn't know what it was. So I put the two of you in the police car, met the ambulance on its way out, and followed it here. I thought—"

"Sure. We appreciate it, Mr. Kinnett. And now look: You must be tired out. As I don't think we'll need you, there's no reason why you can't go on home. Have the ambulance take you back, if you like."

Kinnett mumbled thanks and started wearily away. Mallory halted him. "By the way, when you answered the telephone, who was it?"

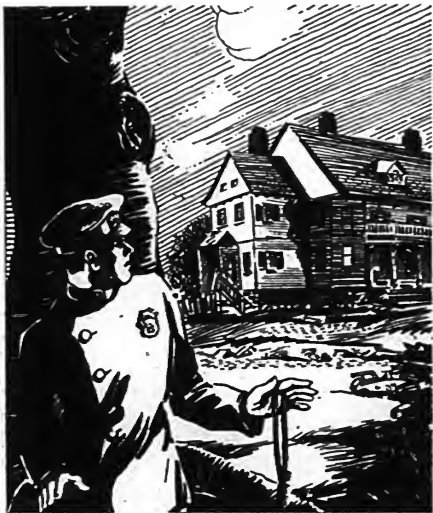
Kinnett looked strangely at the officer. "That's odd, too," he said. "There was no one on the wire—"

The police station was a madhouse, with clerks, officers and newspapermen running to and fro, bellowing meaninglessly, with a strained undertone of doubt and fright in their words.

Mallory and Carson bucked their way through to the night captain's office and slipped inside.

The captain jumped up and cried out: "Mallory! I thought you were going to handle this business about the house! Why, man, the thing's running amuck through the city! Mass hallucination, that's what it is. Mass suggestion. Mass hypnosis. Every half-wit in town thinks he's seen a weird old house on every vacant lot he passes!"

Mallory's stiff lips said, "I've just



*For three years the lot had been empty—a dump, playground.
And now, suddenly—*

been in that house, captain. It vanished while Carson and I were inside." Then, to forestall the captain's outburst, "Carson may be overworked and I may be feeble-minded, but we have an unimpeachable witness—John Kinnett of Continental Power. You can't say he's

crazy, too. And he saw the whole thing!"

The listeners were hushed, and every one experienced the intangible weight of an eerie presence somewhere in the night. The captain's knoes gave way and let him down into his chair.

"Well, my good Lord!" he muttered. "What are we going to do, then? When the radio car got to Tenth and Wedgewood, there wasn't any house. So I figured——"

"Captain!" A desk man burst in wildly. "It's Boronski calling in! He's found the house again! Twenty-two-hundred block, on Crestview!"

In the electric silence, Mallory grabbed the phone, snapped, "Put him on, then! Quick!"

Through the phone came the sudden distant roar of many voices. Mallory spoke sharply: "Boronski! Hello, Boronski! Mallory speaking."

Boronski's rough voice grated over the wire. "Hello. Say, we were cruising along Crestview when all of a sudden we run into a mob of people standing in front of an old house. They all say it was never there before, and there's a dead guy inside. So we get out to look it over——"

"Is it still there?"

"No! The damn thing dissolved right smack in front o' my eyes! But listen, we got a bird here says he knows all about it."

"Then don't let him disappear!" Mallory bawled, and he and Carson were out of the building on a dead run.

MALLORY skidded the sedan around the corner onto Crestview. A radio-patrol car was stalled against the curb ahead of him. It was like a black, shining island in the sea of half-clad people that smiled around it excitedly. Voices shrilled out, half hysterical. A slight, chill wind had sprung up, and it swayed the near-by street lamp gently to and fro. Fantastic shadows wheeled and bobbed like phantom fighters in the dusk.

Mallory cut the motor and stood on the running board, looking over the heads of the crowd. In a little cleared space in front of the radio car's headlights a big, blue-clad figure waited stolidly.

It was Boronski. His meaty fingers were wrapped like a machinist's clamp round the thin arm of an old man. The crowd shifted uneasily and heckled the policeman.

Mallory made his way to Boronski, who sighed in relief. "Say, lieutenant, I'm glad you come. This guy's nuts. The crowd's nuts. I guess maybe I'm nuts."

The crowd hooted and yelled.

Mallory's quiet voice held authority. He handled the unruly little mob with his eyes. "What's it all about, Boronski?"

The radio-car patrolman said aggrievedly, "Why, this old bird's name is Hinman—Dudley Hinman. He saw the house, he and three or four others." Boronski paused to look at the empty lot uncomfortably. "He and three or four others, and me. Said he recognized it. Said he knew all about it—— Now he tells me the thing burned down to the ground fifty years ago! And every time I try to shake some sense out o' him, this bunch o' nit-wits tries to get tough with me." He waved at the people crowding around, smiled grimly.

Mallory jumped in spite of himself as a cracked old voice screamed in his ear, "It did burn down! It did; it did; it did! You poor fools, I'm telling you I saw the fire! Fifty years ago to-night!"

"So now it's come back," said Boronski, heavily sarcastic, and Hinman mumbled the words over and over to himself, as if fascinated by their sound. "Come back. Come back."

Mallory felt himself slipping into a quicksand of helplessness. Mallory was a practical man—a realist. He was a believer in the evidence of his senses. He was convinced that there was a strange house at large, and that it had appeared and disappeared mysteriously at least four times that evening. Such a thing was utterly beyond his comprehension. There were no rules governing it; there was nothing he could do

about it. He simply clung grimly to his sanity by plodding through routine.

"Take the names," he told Boronski, "of all those who saw the house. I'll take Hinman to my car."

Hinman was quiet, rational, when they climbed into the sedan.

Mallory began the quiz. "You recognized the house?"

"Oh, yes. Yes, I recognized the house. I was a carpenter's apprentice in those days. I helped build it. And I was there the night it burned to the ground and they found a skeleton in the ashes." The old man nodded and whispered to himself.

"Skeleton?" Mallory prompted.

"Yes, yes. A skeleton with its head all broken in."

MALLORY was silent for a time, brooding over this strange resurrection from the forgotten graves of half a century ago. The scene was fantastic, incredible—the dim gloominess of the inside of the sedan, Carson sitting like a stone; the old man muttering and squirming restlessly and talking of things that were long since silted over and buried in the dust of time; the crowd yelping outside, demanding that something be done; the hoarsely barked orders of Boronski and his partner—

Mallory shook himself, shivered a little. "Whose skeleton was it?" he inquired.

"Frank Cawkins. I knew him well. They thought Johnny Wyatt killed 'im and burned the body. Johnny was the Cawkins handyman. Frank's brother would 'a' hanged Johnny sure, only nobody had a rope at the time."

"So what did happen?"

"Oh, they tarred and feathered 'im—there wasn't no proof he done the killin', anyhow—and run 'im out o' town on a rail. I can remember it just as plain — It was night. The big bonfire, the tar barrel stinkin' to heaven, the crowd a-yellin' and a-hollerin'. An'

Johnny Wyatt sittin' on the rail all beat up an' bleedin', not sayin' a word and smilin' and pointin' a finger at Elmer Cawkins.

"Just before they slapped on the tar he said, 'You'll pay, Elmer; I'm coming back and collect this debt of blood some day.' The old man's voice trailed away in an incoherent whisper. "Elmer was plenty scared."

Mallory sat back, appalled. His head spun. Cawkins, fires, tar, Wyatt, blood — But these things were not of today. The ashes of the house were long gone; this Wyatt—even if he'd survived the tar-and-feather ordeal—was probably dead and buried.

Carson suddenly put into words the terrible thought. Then this house is a ghost house. And it's come back to haunt a murderer. Probably it's tracking the man down through the years, stopping at each place the man's lived in the past. And when it finds him at last—

Mallory shuddered again, thinking of the phantom house and its ghastly cargo.

Just then Boronski burst through the scattering group of residents and shouted, "Lieutenant! Hey! The house has appeared again! The radio says it's on Sumner Hill, and they're calling out reserves!"

Mallory waved, dived into the front seat. The sedan plowed like a Boston bull through a coop of squawking chickens, plunging down the road through town.

THERE IT STOOD, alone, on a little knoll, looking old and bleak and dirty against the impressive whiteness of the near-by mansions, appearing stark and lonely in spite of the thin, blue line of police reserves beginning to surround it, seeming actually to feel a grim triumph at finding Sumner Hill. It exuded an atmosphere of sinister finality as it loomed there, gigantic against the sky.

Mallory and Carson jumped from the car, helped the excited Hinman to alight. They stared at the ominous scene.

A voice was yammering at the sergeant in charge of the officers surrounding the house. An old voice, cracked with anger and fright. The sergeant listened with one ear, shrugging impatience. He took the old fellow by the shoulder and shoved him, pointing at Mallory.

The old man came at a half run, staggering, waving his hands. He shrieked at Mallory: "What does this mean, sir? What does this mean? That house is on my land! I'm Elmer Cawkins, sir, and I have influence in this city. That house is on Cawkins property, sir! What are the police thinking of? I'll call the mayor! I demand that it be removed at once!"

His face was a yellowish, crinkly mask, with horribly bulging eyes. He breathed in panting sobs.

"Maybe it will disappear again," offered Mallory, with despairing unbelief, looking at Cawkins with distaste.

Sirens keened in the near distance.

The old man flapped his skinny arms. "Take it away! Take it away! It's horrible; it's not real! Take it away, I tell you!"

There was a shout from the crowd. A tiny finger of flame had glided into view, licking at one corner of the house.

Beside him, Mallory heard Dudley Hinman's breath suck in with a hiss. "Looks like your past caught up with you, Elmer," he jeered at old Cawkins.

Cawkins spun like a dervish and glared at the speaker. "I know you, Dad Hinman!" he croaked. "What do you mean by that? What do you mean, I say?"

Hinman stood his ground, cackling with glee. "You know what I mean, Elmer. You know, all right. Something all your money won't save you from. It's in your eyes. You know

that's the house you burned down over your brother's dead body fifty years ago. And the worms of fear are in your veins, an' they're gnawing your guts to water. 'Cause inside that house lies the body of Frank Cawkins, killed by your own hand!"

Mallory and Carson stood off and watched with amazement as the two old men gabbled furiously at each other. Suddenly Cawkins let out a screech, turned, and began to run.

The flames spread rapidly, caressing the warped old boards, eating into cracks. One wall was completely ablaze as Elmer Cawkins dashed across the lawn toward it. As he reached the wall and stood on tiptoe to look through the spectral window, he stumbled, fell into the fire.

The crowd uttered the terrifying, moaning cry of mob panic. Half a dozen policemen surged forward. But the fallen man rose, stood in the fire a moment, then walked out—unharmcd. When he reached the stunned Mallory again he gibbered senselessly.

It was like a nightmare in which everything moved with strained, horrible slowness. The phantom blaze, covering the four walls of the house, pushing up the crumbling roof, to shoot twisting high into the air. And Elmer Cawkins, with the gleam of unreason in his eyes, screaming:

"It's like a house of dough! It's real! But it can't be! The house, and Frank, and the fire—they were gone fifty years ago! And now the damn thing has been stalking me, through the city, down the years!"

Dudley Hinman's face, like a greedy hawk, was thrust forward and clearly etched in the ghostly light from the heatless flames. "I guess Johnny Wyatt was right, Elmer," he cawed in satisfaction. "He said you'd pay."

Old Elmer Cawkins' mind gave way completely. Arms in the air, he

screamed frenziedly again and again, staggered around in a crazy half circle, and fell, writhing, on the lawn, one wrinkled hand clutching his throat. He shuddered suddenly and lay still.

The walls of the house were crumbling slowly, soundlessly. Abruptly there was a blinding flare of crimson. The house crashed to silent ruin. In the dim glow Mallory stooped over the crumpled figure on the ground. He loosened the wrinkled hand from the old, dead throat. He gasped.

The clawlike hand had only three fingers. The little one was missing.

"Lieutenant! Lieutenant Mallory!" It was Boronski, charging up the hill with his last breath, wheezing. "That

ings. Hoses from the fire engines writhing like sluggish snakes across the pavement. The endless rush of water, and the stench of wet wood ash; the crackle of flames. And for the first time in this wild night of incredible happenings, Mallory found logic. For this was the street on which Carson and he had found the house and entered it; next door, already a raging inferno, was the residence of John Kinnett.

The house that had burned on Sumner Hill was a pile of smoldering ashes!

Mallory slipped through the police lines, spoke briefly with the fire captain. They were trying vainly to save Kinnett's place, and to protect the others up and down the block. Standing on

There's another story.

INFINITY ZERO

by DONALD WANDREI

Next Month

house! I just come up from Twenty-first Street. The place is down there, burning like a haystack!"

Mallory stood up and clutched at his temples, as if to stay the flight of his sanity. Carson gurgled deep in his throat, meaninglessly. He saw Boronski look around in wonderment at the grotesque scene. What use to tell the sergeant he was mad? Why bother to explain that the house had just been destroyed here on Sumner Hill? Mallory shrugged and led the parade down to the cars.

TWENTY-FIRST STREET. Another crowd in half dress, keeping its distance. Lights blooming up and down the street; people watching from windows and porches. The road lighted by a hellish glare from the burning build-

the curb, watching complacently, was John Kinnett.

He nodded to Mallory. "I thought you'd be along, lieutenant. What kept you? The little disturbance on Sumner Hill?"

Mallory was shaken. "What! How do you— Where—" He fumbled for words.

Kinnett smiled soberly. "The whole business is a bit bewildering, eh? Well, I intended it to be. Shall I explain?"

Mallory felt strongly the need of a chair. "You're responsible for—for this?" He waved a hand vaguely, encompassing in the gesture a whole night of weird dreamings by a drug-ridden dope addict.

"I am Johnny Wyatt," said Kinnett.

Mallory's brain settled quickly into its normal grooves. Here was a fact,

solid and understandable. A man could take it, examine it, reason from it. "Ah!" said Mallory, melodramatically. "Revenge!"

Kinnett was calm, impersonal. He spoke as if talking about the weather. "Why, yes, lieutenant. Of course. Revenge. Simple motive; complicated in its fulfillment. In order to understand, it's necessary to indulge in a little higher physics. Care to listen?"

Not to be outdone, Mallory flicked a bit of vagrant ash from his coat and said coolly, "Yes, indeed. Please go on."

In a lecture-room tone, oblivious of the activity that seethed about him, Kinnett talked.

"Briefly, the wave theory predicates that every electron, every proton, every tiniest particle is actually a series of complicated waves spread throughout all infinite space. By virtue of their wave motion, the atoms that compose your body, or your automobile, or your easy-chair, exist through all space. But these waves are canceled out all over space, the trough of one wave system coming on the crest of another wave set of that same electron, except only in that tiny bit of space where we can detect its effects. Here the waves are not visible, and we say the electron exists there. That is matter.

"Now I constructed an apparatus after some years of experimentation—you can see it there." Kinnett pointed through the rapidly vanishing walls of his home.

Mallory squinted against the bright light. In what was once a rear room, he made out two insulated benches and two squarish devices set up facing each other. Between them stood a third arrangement, looking like an outlandish camera with a calibrated lens gaping from one side. Even as Mallory watched, the flaming roof crashed down and obliterated the machine in red fury.

"THAT MACHINE," droned Kinnett's quiet, lifeless voice, "I focused on an object with one lens, picking up the proper atomic wave length, and then adjusted another projection device so as to produce a given effect upon the electron waves of that object at a given point. That machine canceled out part of the electron waves, and the rest, no longer mutually cancelable, became real at the point designated. That is the explanation of the house that walked. Its image, in a sense, was real. One thousandth real, let us say. To move through it would be like passing through slightly compressed air."

Mallory strove to maintain an attitude of academic disinterest. "Rather an elaborate scheme, wasn't it? I mean, aren't there easier ways of vengeance than——"

Kinnett appeared not to hear. "Elmer Cawkins murdered his brother and fastened the crime on me. I was a poor boy. I couldn't leave the vicinity. But I couldn't live here, either. People whispered behind my back wherever I went. No one would give me a job; even strangers would look queerly and say, 'Oh, you're Johnny Wyatt,' and tell me they'd let me know if something turned up. Mothers used my name as a bogey to scare their children into obedience. Many people considered me lucky that there was no solid evidence against me. But——"

"Sure." Mallory felt embarrassed. "I know how you felt."

"You haven't the slightest idea how I felt, lieutenant. You can't know the driving power of an injury that makes a man devote fifty years of his life to the sole thought of revenge. I changed my name, of course, managed to get away, made a success—— I wanted my revenge on Elmer Cawkins of such a nature that I could remain free and enjoy my triumph. To be able to laugh in the face of the law that had failed me before. To that end I conceived the ap-

paratus—"He waved to the burning building. It was a hollow square of fierce flame now.

"It was an unfortunate chance that you happened to see the real house earlier this evening. It did not, of course, disappear while you were inside; I simply put you to sleep with a knockout gas and got you away from the danger zone. I was playing for time. I needed another hour to consummate my plan. And you were in a very receptive state of mind, ready to believe almost anything. I rebuilt that Cawkins house from memory; almost an exact duplicate, and put a very lifelike dummy in there. I knew that Elmer had the senile habit of listening to the police short-wave broadcasts." He laughed with dispassionate viciousness. "He must have got an earful to-night! My only regret is that I was unable to be on Summer Hill when the house perched on his front lawn. His face! What a delicious sight that must have been!"

Eagerness made Kinnett's voice tremble, despite his superhuman control. "Tell me, lieutenant. Tell me how he looked, what he said, when doom rose from the dead ashes of fifty years ago to strike him down!"

Mallory shrugged. "It looked like apoplexy. But no doubt he died from sheer fright."

"Exactly." Kinnett withdrew into his shell of reserve once more. "And the law cannot touch me. None of the conversation to-night would be permitted in the court record. It wouldn't be believed. I may be liable to a charge of arson, but I doubt that you could make it stick—"

Mallory flinched as another wall of the hideous caved in with a thunder of flames. The firemen were concentrating on saving the other homes, abandoning Kinnett's.

Kinnett's smooth tones went on and on: "But somehow that doesn't mean a great deal to me now, lieutenant. Existence has become without meaning, pointless, now that I've achieved my life's greatest objective. If you'll excuse me—"

John Kinnett, before Mallory or Carson or any one else had any idea what he contemplated, ran lightly up the sidewalk and into his burning house.

Mallory started after, amid a roar of yelling voices and shouted commands. But he couldn't make it; the heat was too great, blinding him, searing. He teetered on his toes in indecision, listened for human sounds above the cracklings and poppings that were like revolver shots. But he heard nothing save the voices of fiery destruction, saw nothing but the leaping flames.

And John Kinnett never came out.

<p>WOMEN WHO INSIST LUNCHTIME TO BE MORE GRACEFUL IN A SLIP</p> 	<p>WOMEN WHO WANT TO BE ALKA-SELTZER I AM JOYOUS ON THE LOOY</p> 	<p>WE WISE—Alkalize</p> 
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Alkalize with Alka-Seltzer DRUGGISTS 30 60

A Beast of the Void

by Raymond Z. Gallun

PRIOR to recent investigations, little was known about the author of the amazing account prefaced by these paragraphs. The people of the village of Isobel, and of its environs, referred to him as Lothar Weiss, "the queer old duck who bought the Rubland lodge about a year ago." That he was a recluse, and supposedly an inventor, and that, on the last few occasions that he had been seen, he had apparently been suffering from some strange disease, was about the only information they had learned concerning him.

Because of his solitary habits, Weiss' disappearance was not learned of at once; but a long failure on his part to appear in town for supplies, eventually led to a sheriff's inspection of his premises. He had vanished; but curios and relics were found which indicated that Lothar Weiss had traveled extensively, and had seen and done many things during his time.

Included in this varied collection are specimens of dried plant life which no botanist can classify. And there are photographs, too, which, unless one wishes to assume that they are very clever fakes, must be accepted as evidence that the unbelievable contents of his journal record facts.

The hunting lodge which he chose to inhabit is situated three miles from any other building, and is surrounded by dense forest and undergrowth, admirably designed to discourage the curious.

There is little more to tell, before presenting extracts from his diary, which was found at his lodge, on a table in the little lean-to which he must have used as a study. (Other more detailed notes, discovered in a small portfolio in

the same place, are now in the Smithsonian Institution, awaiting expert scrutiny, together with Weiss' photographs.)

In an open area in the forest, a hundred yards or so from the lodge, is a deep excavation, which would have been difficult for one man to dig, even in many years. In the walls of the pit there are ridges which suggest the work of huge claws. Within a half-mile radius of the spot, the trees and undergrowth, though still dense and alive, are smitten with a curious kind of blight that is expected, ultimately, to kill them.

JULY 7, 1937. After pursuing the strange and bizarre on five continents, it seems truly remarkable that I, Lothar Weiss, should receive my greatest piece of luck in a small mid-Western city named Oakfield. I've been here just three months and four days, resting, reading, and doing a bit of gardening. Certainly I did not expect to run into any unusual experience here. But I suppose the extraordinary can happen anywhere.

To-day I found one of the most remarkable objects which it has been the good fortune of any man, interested in the secrets of the universe, to discover. Perhaps it is incorrect for me to say that I found it; for, while I have been at this place, it has rested, partly embedded though in plain view, just at the edge of my garden. How many times have I passed by it, thinking that it was only a lump of limestone!

But to-day, while I was watering my flowers, I noticed something. A small piece of rock had chipped from one side of the object. Beneath, I could see what looked like rusted iron. After a moment



Truly I had become a rider of Pegasus! My steed came from who knows what shadowy corner of the universe!

of close scrutiny, my curiosity was a little more than mildly aroused, and I determined to investigate my find thoroughly.

Procuring a sledge hammer, I proceeded to chip off more limestone; and, presently, after about twenty minutes of work, I knew what the thing was—an

ancient meteorite: It was of iron. The scored-and-pitted surfaces of the object looked exactly like the surfaces of those missiles from outer space that I have seen in museums. Ages ago it had tumbled to Earth, probably into some lake, and there had become incrustated with limestone. Later, some world upheaval

had drained the lake and had left the lump of iron lying on dry land.

But it is not the fact that the object is a meteorite that makes it so remarkable: On its upper surface is a circular area about an inch in diameter. It is dark purple, and is soft and rubbery to the touch. Something is embedded in the meteorite! What it is, I am unable to tell. I only know, that the thought of it fills me with a tremendous interest and a vague unrest. I have removed the lump of iron to the basement of my house. Perhaps I will know tomorrow what is hidden in it.

July 8, 1937. I have released the thing. This morning I procured an oxy-acetylene torch, and thus equipped I cut the mystery of all mysteries from the incasing metal.

How shall I describe it? Certainly it is not akin to the creatures which inhabit the Earth! When the hot flames of the torch accidentally touched it, it did not even shrivel! And its form—devils of Sheol! Never before has a human being seen the like.

When I removed it from the cavity in the meteorite, it was round like a ball; but when I poked and pried at it with a small file, it unfolded like the bud of a great, purple flower, and became a thin disk about a foot and a half across. At its center, in what seems its ventral surface, is a fleshy lump, with a mouth-like orifice in it. From the lump, fleshy ridges radiate like the spokes of a wheel, terminating in long, sharp claws at the edge of the disk. The creature looks oddly like the top of a small umbrella.

To this minute it has betrayed not the slightest hint of life; it seems totally incapable of doing me bodily harm, and yet, when I look into the box in which I have placed it and see the black veins in its membranous, semitransparent body, I cannot help but feel uneasy.

Light is reflected from its skin like the opalescent sheen on the scales of a

black serpent. And it has what appear to be eyes, scattered, like pinpoints, glassy lenses, over its flesh. There is no plan in their arrangement; they seem to be located entirely at random.

July 9, 1937. Can it be that my fancy has played me a trick? Or is it true that I have seen one of the thing's claws twitch ever so slightly? All day long its box has been standing open in the sunshine. I have a foolish hope that this may help to revive it, if any spark of life remains. But such a thing is ridiculous. How could there be any life in a creature that has spent who knows how many ages sealed up in a meteor? It is against reason.

July 10, 1937. Reason was wrong, after all. Early this morning I placed the box and its weird contents out in the sun again. When I returned after breakfast, the muscles of the animal were jerking and trembling feebly. Nor was my surprise at what I saw as great as one might have thought. It was almost as though I had intuitively expected the hideous little monster to revive.

But what is the explanation of this impossible occurrence? Is it really true that toads and similar fauna can survive for ages, sealed up in rocks? Even if this is so, it is not the proper explanation. There is a great difference between being buried in rock and being confined in a meteor sailing in the airless cold of outer space. The little devil I have discovered must have endured the latter situation for aeons.

But then, I suspect that he is made of far tougher fabric than any terrestrial animal. His vital processes must be very different from those of any form of life with which any man has hitherto had any acquaintance. For that reason, comparisons may be more than a trifle ridiculous.

All day I have been watching the thing's weak movements.

July 11, 1937. I have become furtive, like one who holds a dark secret. My strange charge has grown increasingly active, though his movements are still sluggish and feeble. He has been trying to hoist himself out of the box with his claws; and I have been forced to keep his prison covered—a precaution which seems to quiet him to some extent. He evinces a restlessness which I interpreted correctly as evidence of hunger; but I did not know at first what he might find palatable. Table scraps he ignored completely. But there was a little dry soil in the bottom of his box which he seemed to be trying to reach with his mouth orifice.

This gave me a clue. I procured more earth, and sprinkled it inside the box. He attacked it with gusto, creeping over it, and, with inward strokes of his claws, which involved a spasmodic contraction of his disklike body, drew the soil to his mouth, which, as I have said, is located at the center of his ventral, or under, surface.

Strangely, such fare seems to be entirely satisfactory to him; for he betrayed no ill effects—only a sleepy sluggishness for about an hour. Then, once more, he ate his fill. I would not be surprised if I found that inert mineral matter, containing, or needing to contain, none of the organic substances required by all terrestrial fauna, is the natural food of his kind. Theirs is an alien metabolism.

For the present, this is all I have to write in description of my new pet, except that I have called him Darkness. This name, I believe, is appropriate.

However, his entrance into my affairs necessarily changes my plans for the future. I suppose I should shout my discovery of him to the world; but vague, though troubling, fears restrain me. It is perhaps best for the peace of mind of the human race that some miracles remain hidden.

A small town is not a good place to

harbor secrets. To-morrow I expect to leave Oakfield, taking Darkness with me. Some secluded spot in the North woods would be an almost ideal location.

July 28, 1937. I have been here at the Ruhland lodge for two weeks. No one has bothered me, and there are still no remarkable incidents to record. Yet my waking hours have never been more interesting. I can sit from dawn till dusk, watching Darkness, and speculating about him. I have put him in a small fox cage made of heavy wire. He creeps about its interior by doubling and extending his circular body, much after the fashion of an inchworm. Sometimes he crawls up the sides of his cage, using his claws as a cat might. And he has grown, assimilating in some strange way the soil he devours. That growth worries and thrills me in the same moment, making me wonder with some alarm where this fantastic adventure of mine will end. Yet I do nothing that might allay my fears. I only wait, and watch him as he goes through his sluggish antics, or basks in the sun. He always seeks sunshine, as if absorbing it into his tissues was as important a function to him as breathing is to human beings.

I have told myself often that it would be best to kill him; but the utter alienness he represents has fascinated me. Besides, I am not even sure that I know how he may be destroyed.

August 7, 1937. So far Darkness has done nothing to indicate that he is any more dangerous than a docile pet. Not realizing the extent of his powers, I removed him from his cage several days ago, and allowed him to creep about the ground for an hour. He took to following me wherever I went within the narrow radius which I allowed myself. It was as though he had come to accept me as a substitute for a lost parent.

Every day since then I have given him a brief period of freedom.

But it was not until to-day that I learned that Darkness was in a position to make a complete fool of me. Creeping is a mere makeshift means of locomotion to him, for he can travel through the air with infinitely more ease and speed than any creature or plane that I can mention. One of the greatest mysteries about him is certainly his method of flying. I saw the process from start to finish; but I learned almost nothing about its principle, and perhaps I shall never know more.

• Darkness does not spring into the air like a bird, nor does he flutter his membranous body as a bat vibrates its wings. Holding himself perfectly rigid, he darted straight up in the air in an awe-inspiring manner, just as if he were defying gravity. At an altitude of about two hundred feet he checked his ascent in some imperceptible way and began to circle, seeming to steer himself by tilting his body in the direction he wished to go. Otherwise his flight was accomplished without even so much as moving a claw or exerting a muscle. It was uncanny. But whenever he flew directly over my head I felt a strong, repulsive force pushing down upon me.

What the quality of this force may be, or how it is generated in Darkness' tissues, I am unable to say. But even then, though I was stricken with consternation at sight of his astounding feat, and though I was fearful lest he should escape and cause great harm when he grew to sufficient size to be really dangerous, still part of my mind was busy with cooler, less excited ruminations.

"Nature has always beaten man in his inventive pursuits," I thought. "Nature made the birds before man made airplanes. And there were fish before there were submarines. These things being so, might not Nature also have contrived a creature that can fly through interplanetary space, long preceding man

in this ambitious goal to which he now aspires?"

I knew that my thoughts were well supported by logic. Human beings are conceited. They call themselves the masters of everything natural, failing to remember that basically there is more wonder and mystery in the tiniest amoeba than in the greatest, most complicated machine ever invented.

The feebleness of us humans was further demonstrated to me by the fact that Darkness refused to respond to my curses and shouts, the burden of which was that he should descend at once. But finally, to my complete surprise and pleasure, he plummeted down of his own free will, landing lightly at my feet, and suffered himself to be put back into his cage. "Why he did not fly away I do not know; unless, as I have suggested, he has come to depend on me as the young of almost any highly organized species of life depend on their parents. It is a humorous thought from one angle, yet it is a reasonable one.

But I see that Darkness' moments of freedom from his prison must end.

August 16, 1937. Since I found Darkness, I have collected considerable data concerning him; and now I have a few scattered ideas which may help to explain the peculiar nature of his living. Clearly, beyond possessing the ability to move, and some intelligence, there is very little in common between Darkness and the normal creatures of the Earth. The protoplasmic structure of his tissues is necessarily far different from that of any terrestrial fauna or flora. The fact that he requires no organic food is sufficient evidence of this. And there is other evidence.

His tissues are as immune to the action of heat as asbestos; they cannot burn, nor do they volatilize to any noticeable extent. While I was cutting him from the meteorite I touched him accidentally with the flame of the oxy-acety-

lene torch, but no mark was left on his tissues. To-day, as an experiment, I directed the flame of a blowtorch straight against him, and though a spot heated to redness appeared on his skin, he betrayed no more than mild discomfort. Nor does he seem to require oxygen in any form.

What natural miracles of subatomic chemistry take place inside him I have no means of knowing. He eats soil, and the substance of it is rearranged and assimilated to form his grotesque flesh, which perhaps contains the compounds of elements unknown to human science.

He basks in the sunshine, as if absorbing from it the energy necessary to carry on his vital functions. But whether this is entirely true or not, I cannot say. It may be that the living cells of his body tap that ultimate source of power—the atom itself. Or there may be some other limitless cosmic supply of power of which we of Earth have no knowledge.

There is another bit of evidence which may link with these dim theories of mine. I have several times attempted to take pictures of Darkness, developing them myself. All were spoiled. It was as though I had directed the lenses of my camera straight toward some huge incandescent light, or toward a lump of a radioactive substance emitting invisible rays. Some unseeable radiation is constantly being thrown off by Darkness' tissues, perhaps betraying subatomic phenomena transpiring within him. Realizing that, like X rays, such radiations may be dangerous to all terrestrial creatures, I must be careful not to expose myself to them for too long a time.

There is a dark-purple fluid that flows sluggishly in Darkness' veins; but it contains no water. I have drawn a small quantity of it from him with a needle-syringe for the purpose of making simple tests. It does not boil or lose mass, even at the highest temperature that I

can apply to it. Nor does it betray any signs of freezing when the test tube into which I have put it is embedded in carbon-dioxide snow, and ether is poured around the tube. The temperature of minus one hundred degrees Centigrade thus obtained, has no visible effect on its liquid state; and it is probable that the fluid can withstand a much lower temperature without congealing.

Considering Darkness' origin, one would expect him to be able to endure terrific cold; and the fact that the liquid in his flesh cannot be frozen by any means available to me would seem to bear this out. Truly this weird animal is of superior clay, for he has few of the painful limitations which Nature has placed upon man.

But what can Darkness' original home have been like? Possibly some tiny world devoid of either atmosphere or water. Or perhaps his people do not inhabit any one planet, but flit through space from meteor to meteor, like interstellar nomads. Perhaps it was while foraging through space that he burrowed into the porous part of the meteor that later brought him to Earth, becoming trapped there, so that he could not escape. Who can mention all the possibilities? Certainly the mere thought of his history is enough to fire the imagination with a thousand eerie fancies!

September 11, 1937. The thing I have been harboring has become a monster six feet across—a hideous creature with mighty powers for evil in his nauseous carcass. That he is growing to resent me, I well know. He revolts against his constant confinement; and whenever I approach his cage he rolls over on his back and strikes out viciously at me with his claws. I have strengthened his prison by building close around it a second cage of stout wooden poles. This reinforcement looks strong enough to restrain a rhinoceros; still I am uneasy. Why I have not tried

to destroy him I scarcely know, except that, were he to be killed, there would be no hope of probing out the mysteries that have fascinated me, and which I have guarded with what may seem a selfish fanaticism.

October 8, 1937. Last night my fears were realized. Toward one a. m. I was awakened by a violent ripping and tearing of wood and wire. The sounds came from out-of-doors, just beyond my window where Darkness' cage is located. Then there was a scratching noise, as something bulky and vague clambered upon the outer sill of the window.

I was wide awake now. My heart was racing wildly. As quickly as I could, I scrambled out of bed and fumbled around for my flashlight. But before I could locate it, a bulk like a bundle of leather, backed up by the power of a battering-ram, tore through the fragile screen of the window and flashed toward me. Somehow I stumbled aside, and the thing landed with a muffled *plop* on the floor before me. For several seconds the monster remained where it was, a bulging blob of horror dotted with the little circles of opalescence that were its eyes. In them there was a baneful, murderous light. What should I do?

"Darkness!" I tried to put a sharp, angry tone into the word, before I remembered that as far as I knew this mad demon possessed no sense of hearing. But my quavering voice was more expressive of fear. It seemed a signal for the devil to spring. Like a bolt of myriad-clawed insanity, he flew at me.

In my efforts to dodge him, my bare feet became tangled in a rug. I stumbled and fell, upsetting a little stand beside my bed.

In his second leap, Darkness missed his mark, but now he was upon me. I felt his claws tear into my chest and arms. Now his great, pulpy body had wrapped itself about my head and shoulders. Slowly but mightily that wheel-

like disk of cold, rubbery flesh began to contract. In its grasp the life would presently be crushed out of me. My wind was gone.

And then I was lucky. In my frenzied efforts to thrust the mad monster away, my hand came in contact with a rounded piece of polished hardwood. It was the hilt of the Chinese dagger which I sometimes use as a letter opener. Kind chance had made me leave it on the table which I had just overturned.

With all the force I could muster I drove the dagger three times into Darkness' body up to the guard. But still he clung to me like a fiend of hell. My head had begun to spin, and specks of light flashed inside my brain. I was too weak to strike again. But after a few moments Darkness began to quiver, and his grip relaxed.

For a long time I lay there under him, panting. I was completely spent. A sticky ooze of blood smeared my chest and face. When I had rested sufficiently I wriggled out from under the pinioning carcass and lighted a lamp. I was still dizzy and weak.

I examined my injuries. My pajamas were blood-smeared tatters. There were two gashes in my chest, and one in my left arm. They looked nasty, but were not very dangerous if properly cared for. As quickly as I could, I disinfected and bandaged them. My casual study of medicine stood me in good stead. By a miracle I have escaped death.

And Darkness, he too is alive, but whether he will continue to be so for long, I do not know. The dagger entered the fleshy central portion of his body twice, and seems to have paralyzed him. He can scarcely move. With considerable difficulty I have returned him to his cage, and have repaired the rent in it sketchily. There he is twitching feebly.

Why haven't I finished him? I shake my head. This utterly bizarre thing

from the realm of the stars still holds my fancy, perhaps more than ever before. But I shall not be so stupid as to go unarmed in the face of a known danger again. I am keeping a heavy automatic within easy reach at all times.

October 10, 1937. Darkness' condition has improved slightly. The deep dagger wounds show indications of beginning to heal. The purple liquid that flows in his veins in lieu of blood has ceased to ooze from them intermittently. Perhaps he will live after all. It is odd, but I feel that if he does I shall be glad.

I have repaired his cage, and have redoubled its reinforcements. But for the present there seems no need of keeping Darkness confined while I can watch him. He cannot even crawl yet; he can only bask in the sun. And so I have left the door of his prison open during the daytime.

Perhaps his injury is the turning point. Perhaps he resented me only because I kept him confined. I can give him more freedom, now, because he cannot take advantage of it. Perhaps now I can win his confidence and master him. I have fed him by hand, and I have petted him, hoping that these kindnesses will wipe out his feeling of ill will toward me.

October 29, 1937. Except for a dull, rheumatic ache in my hands and arms—a symptom which I am sure has no direct relationship to my injury, but still is associated intimately with the vital processes of my weird charge, with whom I have been in too frequent contact, I am quite well. Darkness has also almost completely recovered.

Otherwise my success with him has been all that any one could hope for. Never, since our encounter, has he shown the least sign of hostility toward me. An hour of freedom a day, and a little show of affection on my part, has

done the trick. Once, while he was out of his cage, he arose a short distance into the air; and I held my breath in suspense. But in a few seconds he alighted again, and, without any urging, returned to his cage.

His flying ability has given me an idea. I have ordered an airman's parachute, a considerable quantity of lead cloth, leather, and other things which will be necessary to give my plan a try. I am hoping that these articles will be delivered at Isobel without delay.

November 9, 1937. I have finished my preparations for a novel adventure. I have made a coverall of lead cloth to protect myself from what might be a dangerously long exposure to the radiations of Darkness' body. And I have contrived a kind of platform with stout handgrips, which I hope to strap into place on Darkness' back. The parachute is for emergency use. Now I must hold my thumbs in suspense until to-morrow.

November 10, 1937. Success! I had a bit of trouble saddling Darkness, but after that matters went with a fair degree of smoothness. What I have achieved has turned my imagination into a tornado of wild fancies. Clambering onto the platform on Darkness' back, I waited for things to happen. Chagrined at my unusual position, he arose like an animated skyrocket, straight up into the blue.

Though this is exactly what I had expected, the shock which my nerves received from that sudden, breakneck rise was not exactly mild. My weight seemed to increase so swiftly because of our rapid acceleration that I felt almost as though I would be forced straight through Darkness' body, that is, if I did not lose my hold on the handgrips and go tumbling toward the ground. But in such an eventuality, I still had my parachute to rely on for safety.

At an altitude of perhaps five thousand feet, Darkness checked his ascent. All about me was an awful emptiness, extending way down to where the forest spread out, deceptively near, and giving the false impression that one would have to drop only a few feet to reach it. I shuddered.

But I did not completely lose my presence of mind. Darkness was flying horizontally now. I tried to put into execution the plan for controlling the direction of his flight, which I had thought out before attempting the adventure. I tipped my body toward the right, and presently his flat, disklike body also tipped toward the right; and we began to move off in that direction. Then I leaned toward the left, then backward, then forward, with similar results.

The success of my plan so pleased me that I almost forgot my feeling of precarious unease. But at last Darkness refused to respond to my steering. He maneuvered over the lodge and dropped to the ground as gently as a piece of cotton. I have not been completely successful in breaking my mount, but that I shall be so eventually I am quite sure. To-morrow I shall try again.

December 5, 1937. During the past few weeks I have been so busy that I have scarcely had the time or inclination to write. Who would have believed that any human being could have enjoyed such a wealth of novel experience that has been my lot! Truly I have become a rider of Pegasus! But such a Pegasus! No, white-winged steed of the Empyrean, but rather a nightmare coming from who knows what shadowy corner of the universe!

On our second flight Darkness carried me to such an altitude that I could scarcely breathe, but still he wanted to ascend farther. I had to beat hard upon his back with my fists to make him descend to a point where I would not lose

consciousness and be frozen to death, for the weather, even on the ground, was cold. The Earth had shrunken to a great relief map, here and there veiled by specks of cloud.

That night I devised a sort of diving suit which would permit me to ascend even beyond the limits of the Earth's atmosphere. I sent the drawings and plans for the device to a man in Detroit, and instructed him to hurry my order along.

During the time before the finished suit was delivered to me, Darkness and I made many flights. Usually we maintained an altitude of about ten thousand feet, where, soundless as we were, we were practically unnoticeable from the ground. The diameter of Darkness' body has now grown to about nine feet, small enough to make only a tiny speck at such a distance. (And at ten thousand feet the conditions are not too severe for me to endure without too much discomfort when clad in heavy flying togs which I donned under my coverall of lead cloth. My face was always protected against cold, and against the terrific wind of our flight, by a heavy mask. I was bound firmly into place with steel cord; and I had a flask of oxygen which I could use if it were necessary.)

On our first journey we flew west to the Rocky Mountains, and then swept south and east in a great curving arc, then north, and back home. Crouching with my head bent close to the platform on my mount's back, I let the wind scream past me. We must have averaged well over five hundred miles per hour, which I then suspected, and later learned, was but a snail's pace to Darkness.

Similar and almost daily trips followed, covering almost the entire North American continent, except its northern extreme, into which I dared not venture because of the approach of the arctic winter. But in spite of this caution, we were several times caught in blinding

blizzards, through which only the marvelous directional instinct of my mount enabled us to find our way.

At last the diving suit, or space suit, was delivered at Isobel. That was two days ago. Leaving Darkness in his cage, which I have now enlarged and covered with heavy planking, I drove into town to get it. On my return I climbed eagerly into the bulky, leaded attire, adjusted the oxygen valves, and then released my mount and fastened the platform into place on his back.

The ride I had that morning was by far the most awe-inspiring I have yet experienced. We climbed until the Earth had dropped, like a dim fairyland, far below. The atmosphere slipped from around us, and the sun, still low in the sky, shone upon us like a great, blood-red bubble submerged in a sea of opal. But as we went still higher, it freed itself from the veiling air and glowed with an almost blinding intensity. Its corona was faintly visible. All about was the black firmament, pierced by the pin points of icy fire that were the stars. The pressure of acceleration was terrific.

I was out in space! I was no longer a creature of the Earth. My native planet with its petty inhabitants and their petty civilization had shrunk far into the background of my mind. Rather I was a creature of the universe who defied those limitations which Nature has placed upon men.

Minute by minute the discomfort of our mounting acceleration became more severe. If our increase in velocity continued for long, even at its present rate, it would take but a short time to attain a speed of several miles per second. That I could withstand such a velocity, I, of course, knew. Only a too abrupt change in speed can kill.

Details on the surface of the Earth continued to grow smaller. Suddenly panic grew out of the calm that possessed me. Where was Darkness carry-

ing me? Could it be that he was seeking his own kind? The idea thrilled me, and yet it made me feel a vague terror. I was not ready to leave the Earth. I thumped hard with my fists on Darkness' broad back. He began to decelerate swiftly—too swiftly. The stout metal cables with which I had lashed myself to the platform on my mount's back strained alarmingly. Mental impressions grew fuzzy and vague as the pressure of deceleration, applied much more swiftly than the acceleration of our long ascent, drained the blood from my brain. In a few moments' time consciousness must have faded out, for I do not remember the return to Earth. I only know that I regained my senses in Darkness' cage. He had crept inside it, and I was still bound to his back.

December 17, 1937. Apparently there can be no further ventures for the present. With the coming of cold, cloudy weather, Darkness has changed his mode of living considerably. He has grown very sluggish. It cannot be the cold that has brought about this condition, for he loses not an iota of his vitality even in the absolute heatlessness of space. It must be rather the lack of sunshine, which somehow promotes his vigor.

He has buried himself in a pit which he has dug not far from the lodge. He eats almost constantly, devouring great quantities of red clay. He has become like a voracious caterpillar, and like a caterpillar he is growing very rapidly. On those rare occasions that the sun shines he crawls out of his burrow and basks in its bright rays. Because of his semitorpid condition, I feel a little safer in granting him these freedoms. I suppose I could have kept him confined; but the fact is that I want him to eat and to grow as Nature intended, regardless of the dangers involved; for I have a plan that has captured my entire being.

January 20, 1938. Darkness has lain buried for over three weeks, but to-day he came out for a little while. He seemed unutterably terrible before, but now! His growth has been enormous, and it makes me more than a little afraid. No power known to man could restrain him now, should he choose to run amuck. His body is fully fifty feet in diameter! There he lay, stretched out in the snow, luxuriating in the feeble winter sunshine. His claws twitched lazily—great claws each fully three feet long. I could not help but think of what tremendous powers for destruction slumbered in that terrific carcass.

What are Darkness' feelings toward me? Is he really capable of such complicated emotions as love or loyalty? Since our encounter, months ago, he has given me no sign of resentment. Certainly there is nothing about him that is suggestive of a fawning dog; yet somehow I have become convinced that he harbors a cryptic affection for me. But maybe I am wrong. Darkness is an alien, a beast from across the void. What do finite men really know of those vast, empty regions between the planets?

Now that the late afternoon sun has disappeared behind a cloud, the monstrous thing which I scarcely dare to call a pet, has returned to his burrow and his feeding. Doubtless he will continue to grow more and more monstrous.

I have guarded my secret for a long time. To reveal it now would only throw the world into a panic. Besides, I have lost almost all interest in Earthly contacts. I have a larger view now; and, as I have said, I have an idea. For weeks I have been perusing astronomical charts, working out theoretical paths for traffic between the planets. And all evening I have been busy with drawings and plans. I am sure that this winter will be by far the busiest winter of my life. And when spring comes round I

shall go—who knows where! Certainly no human being has ever been granted so glorious an opportunity!

The fact that I am now a sick man does not alter my attitude in the slightest. The affliction from which I am suffering is clearly related to the radiodermatitis that troubles experimenters who work much with X rays, and to radium poisoning. Its cause is obvious. When Darkness was but a small creature the emanations given off by his tissues were comparatively harmless; but with his vast increase in size they have been correspondingly strengthened. Even his present sluggishness seems to add to their power; for building processes are going on within him that are alien to his normal, active metabolism. And I know of no way to screen the emanations adequately from my own flesh; they must fill the countryside for a half mile around, at least. Perhaps I could go away for a while and recover; but this I dare not do. I am the only check on Darkness' powers. Inactive though he is now, he must be watched. Besides, I could never go far from the thing which has so captured my fancy.

May 14, 1938. There can be no thought of pain and sickness now, for we are ready to make a test flight into the void. It is evening, and I am waiting for night to come so that there will be no chance that our departure will be observed. Darkness lies in a little natural clearing near by. In the center of his back, which is now almost a hundred feet across, a cylindrical, air-tight drum six yards in diameter and two in height, is fastened. It has coldproof walls, and is shielded by a thin layer of lead. This latter protection is no adequate guard against the deadly emanations I have mentioned; but it is better than nothing. In the drum are stored food, water, and bottles of oxygen. There is a berth inside, and a tiny electric stove. There are scientific in-

struments, a camera, and films. The latter are in a heavy lead box. This should prevent them from spoiling for some little time, even though there will be not only Darkness' emanations to contend with, but strong cosmic rays as well.

I have worked out a system of electrical signals by means of which I hope to control the speed and direction of Darkness' flight in space, since my old system is obviously useless now, considering the size of my mount, and the car in which I must be confined. Pressure of various studs will transmit mild electrical tingles to various portions of Darkness' flesh. This system is more complicated than the other, but Darkness is intelligent, and I am sure that he will learn quickly. I am prepared for a journey of some duration. Perhaps, if luck is with me, I shall visit our nearest neighbor in space.

May 15, 1938. That I have been to the Moon, have spent some little time there, and have returned, all in twenty-four hours, may be a difficult idea to grasp; but it is true. There was a certain amount of bungling in space, incident upon teaching Darkness the new method of guidance and control; and I, for my part, am hardly experienced enough to be the best sort of interplanetary rider. But we made good time—about nine hours for each half of the trip. That gives us an average velocity of about seven miles per second.

This last matter-of-fact statement seems a trifle incredible to me yet. It still makes me wonder how it is that I have endured the acceleration necessary to attain such a speed; but cold mathematics often blast a popular concept, and they do so in this case. Here on Earth a free-falling body accelerates at the rate of thirty-two feet per second in a second. Starting from rest, and if there were no atmosphere to offer frictional resistance, a body accelerat-

ing in a gravity field equal in strength to the Earth's at its surface would attain in a minute's time a velocity of almost two thousand feet per second. In an hour this speed would be increased to something over twenty miles per second! Yet it is a known fact that an acceleration of a mere thirty-two feet during one swing of the pendulum cannot kill. Nor, as I have pointed out before, is speed deadly. The fact that the Earth moves around the Sun at a velocity of about eighteen miles per second, bearing all its living creatures with it, proves this.

No, Darkness made no remarkable record on the lunar flight. He can accelerate more rapidly than a free-falling body, and he can sustain this acceleration. What his limits are, I cannot guess. In space, all speeds are relative, of course, and there is no atmospheric friction. A mass in motion could go on to the ends of the universe without further application of power.

But, discussion aside, the fact remains that I have been to the Moon. Clad in my space suit, I have walked on its ashy soil; I have seen its black sky sprinkled with brittle stars; I have felt its weak gravity; I have descended into several of its deeper craters, where a trace of air and water still remains, and where a few curious Eichenlike plants still grow. Whether there was ever more life than this on the surface of our satellite I cannot say. But I have collected specimens of this odd vegetation, and I have taken photographs. Separate from this diary, I have prepared notes of all my observations. And one of my most prized possessions now is a snapshot of our Earth from a distance of almost a quarter-million miles. Now I am preparing for a more ambitious venture.

May 18, 1938. Off for Venus!

June 9, 1938. Three weeks in space, and a day on the planet dedicated to

the goddess of love; a swift journey around the Sun. That is a brief statement of my activities since my last entry. What I suspected relative to possible velocities has proved true. At times Darkness must have built up a speed well in excess of a hundred miles per second, but when we were coursing along without benefit of the mysterious power that resides in his flesh, we seemed to hang motionless in the void, though our pace, relative to the planets, remained undiminished. When the power was again applied, the sensations were identical with those of starting out from rest.

Venus, as one would expect, is a primitive world, utterly frigid on its night hemisphere, and just as torrid on the most of its sunward half. But there is a narrow twilight belt, hemmed in by blazing deserts and icy mountains, where life exists. In the twilight belt there are islands and oceans, teeming with the plants and animals of creation's dawn. The era they represent must correspond approximately to the carboniferous age of Earth. As in the case of my visit to the Moon, I have collected specimens, data, and photographs.

In a few days I shall start out for Mars.

July 1, 1938. I have returned from the Red Planet—my last return to Earth, I am sure. Percival Lowell was right. The canals are artificial, and they were built for irrigation purposes. Marvelous engines still pump water from the melting polar snows down through buried conduits under the beds of these strips of fertile soil. But except for primitive growths like the lichens of the Moon, there is no life for the moisture to nourish, and the monumental cities of a departed culture are utterly dead. This should not be so, for Mars still has air, water, and sunshine. The death came from a differ-

ent cause, and I suspect the nature of that cause. The rusty deserts are pitted with many deep excavations, which look exactly like the pit which Darkness has dug. Can it be that the final chapter in the history of Mars was the story of a visitation by a horde of beasts from space? Apart from violence, I am fully convinced that the emanations from the tissues of such creatures could destroy in time almost all life on the face of a planet.

I know what I am writing about. Because of the sheer fascination of my other experiences, I have made small mention of my physical suffering. But I know that I am a man marked for death in a matter of several months at the latest. My joints are swollen, my body aches constantly, and my hands and arms are covered with scabs. My fingertips have almost lost their sense of touch. X rays are dangerous, and so are the radiations of radium, but the emanations from Darkness' body are more so. Even the forest around the lodge is blighted and dying.

Another thing: Darkness has reached adulthood, and is now preparing to spawn. At the base of each claw, and on his ventral surface, are clusters of small bladderlike knobs filled with the purplish liquid that is his life blood. Within each knob, dimly visible, is a tiny duplicate of Darkness. A sexual reproduction.

Clearly, I must remove Darkness from the Earth before the knobs open. If I fail to do this, no one can tell what catastrophe may result. Perhaps I could devise a way to kill him; but such a thing, considering his strange, alien loyalty and the wonderful adventures he has given me, I could never consider. There is another better way.

I gained new knowledge about Darkness on the Martian trip. I know that his energy gradually diminishes as he goes farther from the Sun. I am sure

that he does not draw his power from the solar rays, but from another source, perhaps the atom itself. Still, the radiant energy of the Sun evidently is essential to his vital processes.

And I can guess with some degree of certainty how Darkness' kind travel from star to star. While within the vicinity of any sun they are actively alive, but when they recede from it far enough they fall into a state of suspended animation, from which they are revived only by direct exposure to the rays of another sun. So it was with Darkness, anyway, when I removed him from the meteor.

Thus the beasts of the void can migrate. They build up speed while in an active state, near a star. They shoot out into the interstellar vastness, their vital processes slowed to zero, but their velocity undiminished. With animation suspended, the time necessary to cross such incredible distances means nothing to them. They eventually awaken in the bright rays of another star, and life goes on where it left off. In Darkness' case there was, of course, a slight deviation from the usual, brought about by whatever mishap caused him to be embedded in a meteor, through which no Sunlight could penetrate.

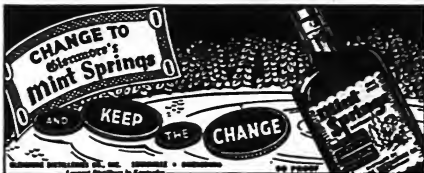
Briefly, it is my intention to guide

Darkness away from the solar system. In some far distant age he may awaken among another family of planets. Probably I shall still be with him then, though of course only as a mummified corpse.

I regret nothing that has happened to me. I have really lived. I have seen other worlds. I have felt the awful grandeur, and the crushing nostalgia of the great cosmic desert. And, already doomed, I am about to die as any man like me would choose to die. This is all for to-night, for I am very weary.

July 3, 1938. I am ready to go. This journal, and the notes and photographs that go with it, were not originally intended for other eyes than mine. But I have decided to leave them behind. Perhaps they will provide mankind with an inspiration. Perhaps, before many years go by, space ships will be sailing between the planets. Such vessels will not be natural like Darkness, but at least they will seem more natural to human beings. I like to believe that this dream will come true.

Somewhere in the evening twilight a robin is singing. It seems odd to be leaving Earth forever at the end of this glorious summer day.



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LITTLE HERCULES

Life holds certain natural imperfections. It is the business of science to correct them—but if science is ruthless—

by Neil R. Jones

THE FUTURE of Grimo appeared a dismal one, and a symphony of gloom echoed its dirge through his mind and spirits. It was like Grimo to put his thoughts and moods in musical cadence. He had been given an elaborate education in music, and he appreciated all the higher arts of his study.

Unfortunately, the contemporary phases of his life ran to similar tastes. And Grimo had always lacked the necessary means to obtain the luxuries he craved. He had spent lavishly with little forethought of the morrow, and he had borrowed recklessly. There is generally a quick end to such practices.

The end for Grimo had been murder. One of the money lenders had become too persistent for Grimo's high-strung, quick-trigger nerves. Ugly threats had been poured into his ears, causing his dark, handsome face to flush in desperation. The murder had been almost self-defense.

Above Grimo towered the tall buildings of the 26th-century Buffalo. Aircraft flitted down from the stars into the glare of the city's night life. During the day, Grimo lurked in the darker and less-frequented tunnels of the substrata, living the continual dread of the fugitive. At night, he came out to look at the stars—at the red eye of Mars, wishing he were there instead of on the pirate-infested Earth ruled by the dominant cult, the Durna Rangue.

Mankind had been colonizing Mars and Venus for the past two centuries. Four years ago, Grimo might have made his escape to another world, but all that was now changed, since space pirates and a supposedly, long-dead Scientific cult had joined resources to conquer the Earth.

It was the ambition of the cult to eventually rule the solar system, but at present they were content to remain fortified behind the invisible rays of death which kept off counterattack from the sister worlds. A veil of destruction enshrouded the Earth, keeping out the interplanetary guard, and letting pirate space craft in and out through carefully guarded space locks.

For over two hundred years, the Durna Rangue had lain hidden, scheming and growing in power in the depths of Oberon, a satellite of distant Uranus, and their connivance with the numerous bands of space pirates in the joint conquest of a stunned, unsuspecting Earth had rocked the solar system.

Civilization was no more astonished at the appearance of this grim resurrection than the peoples of 20th-century Europe would have been if Attila and his Huns had suddenly ridden into the great capitals and with intricately prepared plans and weapons had captured the continent in one fell swoop. There had been chaos, but during the past four years the Asurians, as the priests of the cult were called, had suppressed



*The ship turned, like a phantom, and came down
like a floating feather.*

and modified the ruthless depredations of the space pirates, turning to the reorganization of world civilization.

To this fact, Grimo laid another blame for his present, evil circumstances. Those had been turbulent years since the world cataclysm had descended, and free-livers and lavish spenders like Grimo had taken full advantage of the turmoil. Debts had been repudiated. Lesser riches had been furtively snatched from the overlaiden coffers of the space pirates, on the theory that there was no crime in stealing from thieves.

Clever and talented people such as Grimo had done very well by themselves during that reign of terror and instability, but now the cult had clamped down a firm hand. Law and order were again in force. The space pirates became satisfied with high, important positions, where they lived a life of graft and vicious indolence. Many ruled their territories benevolently. Others were despots, kings in their own rights. The Durna Rangue wanted only to be left alone with its subjects and human experiments in the gloom and mystery of the vast sanctuaries, keeping a watchful eye and guiding hand upon the destinies of the world.

CHILLING RUMORS circulated regarding the Durna Rangue, revived stories which had lain dormant as legends during the past two hundred years. The Asurians had mastered immortality to the point where they were invincible to the less violent forms of death. Among them were priests who had lived for more than two centuries. They were masters of super-surgery and brain transposition, and Grimo had heard that they were past masters in the art of hypnotism.

He gazed longingly at Mars. He had been there once. He had been to Venus, too, but the thick, stuffy air had nauseated him. How well he recalled the clear, cold Martian nights with the glit-

tering stars spread much more profusely than in the Earthly sky. It was in times of trouble that Grimo always wished he had lived a more honest and better-ordered life.

He moved out of the shadows. A stealthy movement behind him caught his eye, and a thrill of dread, the ever fear of apprehension, assailed him. The drifting elegy which haunted his mind leaped in faster tempo to a crescendo of terror. A figure more alight than his own slid up behind him, and a voice wonderfully soothing to his startled nerves spoke reassuringly, as if sensing his alarm.

"Do not be afraid, friend."

"What do you want?" demanded Grimo.

His eyes searched those of the other questioning. He detected a queer cast, something of a magnetic depth of introspection, as though the man had lived another life, still retaining the memories of that dual existence. The reply was comforting, yet did not allay Grimo's suspicions.

"I would help you."

"Why? What do you want?"

"I want a friend," came the somewhat evasive answer. "I can do with many friends, in fact."

"Who are you?" demanded Grimo.

"A friend to murderers, Grimo, who are driven to kill."

The reply, a quiet one, shocked the fugitive and sent his heart leaping in confirmation of his worst fears.

"You—you've come to take me?" he cried. "No—never! I'll—"

"Peace!" urged the stranger, clamping Grimo's wrist in a grip of iron. "I have come for you, but you do not go to execution, Grimo, nor even to prison—and, what is more, my good friend, you have the choice of not coming with me if such is your desire—if you still prefer to remain a fugitive from justice for a while longer."

Something ominous in those last

words did not escape Grimo's notice. He was bewildered. The man had denied that he was a secret agent of the law, yet he knew Grimo and his offense and had come to offer him a proposition. Yes, that was it, a proposition. At this thought, Grimo felt a bit relieved. There was something to bargain for. This stranger, too, was in a shady spot. He needed a desperate man for a desperate venture. Grimo reasoned this quickly, and at once he approached the point.

"What do you want me to do?"

"Join me and give up this worldly strife and trouble."

"What do I get out of it?"

"The realization of your uttermost desires, the unattainable ambitions you have always striven for, and complete happiness such as no one on this sphere has ever realized."

GRIMO gazed at the stranger in amazement. The strange light had kindled in the other's eyes, and he was now certain that he had to deal with a madman. But the madman possessed a dangerous bit of information. He knew who Grimo was. He sought to humor the man, to draw out more of his thoughts and confirm his suspicions.

"And where and how can I realize all this?"

The reply was cryptic, all explanatory of everything strange regarding the man and his proposition, dispelling any doubts Grimo held concerning his sanity.

"The Durna Rangue offers you sanctuary, a release from your troubles—and all that I have promised you."

"The cult?" Grimo was filled with sudden visions of stories he had heard of the coffin baths, where the dream sleepers, in a state of near-death, lived a synthetic lifetime by scientific induction of sense through the channels of the imagination.

"But why do you ask me?" he queried

helplessly. "It is the power of the cult to take any one they want, now that the Earth is theirs!"

"True," purred the proselyte. "But willing minds are both scarce and preferred. You should be willing."

Indeed, Grimo reasoned, he should be, with the grim sword of justice hanging over his head by a hair. There was no escape. Now another uncomfortable thought forced itself upon him. The proselyte would undoubtedly turn informer in the event he rejected the offer. The cult might even seize him anyway. He thought of the horrible stories he had been told of vivisection of human bodies, alive as well as dead. He faltered. As if his innermost thoughts had been read, the reply of the proselyte came startling.

"Those who come with willing minds do not have cause for fear. You, my friend, will be adapted to help us. Only those whom we must coerce ever reach our laboratory tables."

A bit of relief and hope swayed Grimo to accept the enticing offer of a synthetic lifetime. It must be wonderful, he thought, to live a life of fullest realization. Afterward, as the proselyte had promised, he was to become a useful minion of the cult.

"I am your man," Grimo sighed resignedly. "Where do we go?"

"To Cleveland," the proselyte replied with evident satisfaction. "To the sanctuary."

Grimo found himself being led into a near-by building and to the upper levels, where aircraft plied above the landing roofs. The proselyte stood silently for a moment and raised his arm as a small, slim airship passed overhead. The ship turned and slid over the roof like a phantom, landing as softly as a floating feather. They entered. Grimo saw no operator, yet the ship rose and headed west.

During the short trip, the proselyte sat benignly, his face set in a frozen cast

of anticipation. Neither of them spoke. Grimo found himself lost in the excitement and turmoil of his thoughts.

II.

THE NIGHT was old. The Moon's late crescent and a few bright stars still lingered in the graying dawn as they settled to Earth beyond the great, towering buildings of the Cleveland metropolis. The sanctuary stood isolated miles from the city—a somber, grim pile. Like the back of a giant animal, it reared its gray, forbidding bulk in a long dome which sloped on every side, the walls disappearing beneath the level of the ground. Grimo had heard that the sanctuaries were constructed far into the ground, their greater mass hidden from sight like the icy, heaving bergs of the polar seas.

Far above the ground level, a few deep-set windows stared like empty eye sockets into the graying dawn. Grimo felt frightened and hopelessly depressed. He experienced subtle misgivings, and a shiver of dread followed his spine as he and the proselyte stepped from the air ship.

He was guided to a tapering end of the gray building. A fearful glance at the proselyte found the same settled expression of repose and anticipated contentment. The silence irked Grimo. He opened his mouth to speak, but found his tongue strangely paralyzed against the roof of his mouth.

The wall before them lay blank. There was no door or entrance of any kind visible, yet something moved. A part of the wall had slid aside, and Grimo felt the proselyte gently urging him into a small antechamber which was not unlike a prison cell. It was small and bare, and from the walls and ceiling issued light—light without shadows.

The entrance had closed, and Grimo was shut off from the world. He was not surprised when another section of

wall gave way, revealing a long corridor. He heard a voice speak, close to him, ahead of him, yet he saw no one.

"Come."

He hesitated, turning to the proselyte for advice. To his stupefaction, he found the proselyte gone.

"Come." The voice spoke again.

Grimo walked down the corridor slowly, nervously, until he came to a cross corridor. Here, he hesitated. A hand gripped his arm and pulled him along. He saw no one, yet he could feel the fingers. He put out a hand and felt an invisible arm. Resurrected in his memory were rumors of the cult's powers to create invisibility of animal tissue.

They were walking down the cross passage, when a gray-cowled figure in a gray robe met them. Smoldering eyes contemplated Grimo from the shadows beneath the cowl. Here was one of the Asurians. Hypnotic eyes fixed his own in a grip of fascination. His mind was no longer his own. It swayed helplessly to the compelling influence of another.

"Follow me."

Grimo followed. His new guide walked with noiseless tread, and soon Grimo was aware of many pattering footsteps which joined his own at a cross corridor. He turned his head and discovered a squad of diminutive figures marching behind him. They were men, but little men, scarcely half as tall as he himself. Each midget, or dwarf, carried a long silver rod over his shoulder.

The little men were all so uniform in size and height that Grimo wondered confusedly how the cult had ever collected them together. They seemed to evince no interest whatever in his arrival. The general expression of their faces was one of dull meditation.

THROUGH CORRIDOR after corridor, the Asurian led him, always followed by the diminutive escort with the

silver rods. Grimo soon lost all sense of direction in a bewildering labyrinth. They turned finally into a vast chamber, where row after row of oblong receptacles, strongly suggestive of coffins, were laid on heavy bases. As if to emphasize the similarity, a white, clutching hand hung over the side of one. Grimo shrank from it instinctively. The coffins were without lids.

As they passed through between two rows of the gruesome receptacles, Grimo, who had steeled himself to look upon the ghastly contents, was surprised to see only a gray, misty liquid, which on closer sight he decided was more of a thick, heavy gas than a liquid. He saw something else which startled him: A flexed knee arose from the gray contents of a receptacle, and the heavy, tritious vapor rolled sluggishly away from it. Grimo shuddered in abhorrence.

"You will soon be in this chamber, immersed in the dream life of happiness and contentment, doing what you have always wished to do, possessing that which has always eluded your grasp. You can be wealthy; you can be famous. You will be master of your own destiny, the possessor of your fondest hopes, your dreams, your ambitions, for the synthetic lifetime will be as real as the life into which you were born."

Grimo always found the following moments difficult to remember. He knew that he was under the complete control of the Asurian, whose persuasive powers and seductive thought pictures drove out of his mind all antipathy against the coffin baths and replaced it with keen desire and impatience for the delicious moment when the gray vapor should envelop him in the coveted world of his own imagination.

What little Grimo could afterward recollect resolved itself into hazy memories of further walking; more corridors; more dwarfs; unbelievable human things with heads like insects; laboratories

with weird, un-Earthly equipment. He recalled somewhat indistinctly the multi-colored lights beaming down upon several cowed figures who bent over him where he lay. There were things being done to him; then memory failed him completely. Consciousness had evidently departed at this stage.

His next realizations were not of the world he knew. A singing vibration bearing a quality of sweet and eternal sadness, far away yet coming steadily nearer, welled up around him. It was almost tangible, this plaintive lament. With all memories of the past erased from his mind, he found himself walking. The gray-cowed Asurians were but figments of a dream, drifting away to the realm of forgetfulness.

An enormous, illimitable chasm stretched away to darkness. Far away, a light beamed from somewhere, spreading an abysmal gloom over the yawning pit. A subtle premonition that something unseen was preparing to drop Grimo into this beyond caused him to emit a soundless scream of fright. He fought for control of his muscles, over which he seemed to have no power.

The unwordly abyss became lighter, suffused with a gray drabness, and Grimo became suddenly aware that whatever it was he had been standing on had vanished and he was plunging through space into the drifting clouds of gray. He fell and fell, wondering if there was ever a bottom to the abyss, fearing the drop, yet at the same time fearing that he would go on falling forever, that the gulf was endless.

In kaleidoscopic review, the gray passed to pearl tint and then to yellow, which waxed into a beautiful, golden panorama materializing before his eyes. The change caught and held his wonder, and so fascinated was he, and so wonderful a transformation had his spirits undergone, that he scarcely noticed the fact that he was no longer falling.

In the years following his revival

From the dream life, Grimo ever after believed that his sensations of falling through the gray abyss were occasioned by his being lowered into the gray vapor of the coffin bath, and although such an act could not have taken more than a fraction of a minute, it had seemed a protractedly long time in his altered state of existence.

THE DREAM LIFE was everything which had been claimed of it. Its insidious character, however, resulted not from the immersion into the gray vapor and the suspension of life forces, but in the return to a drab and colorless state of affairs. Grimo's adventures, escapades and accomplishments would have filled a large volume.

During his synthetic lifetime—which in actual Earthly time was somewhat less than two years—Grimo seemed to lose all faculty of calm, considerate reasoning. He never doubted or wondered. Strange to relate, every adventure remained independent of itself, as if in life he had picked up a different book to read. There was no memory, no association of events.

Matters were different after his transition to Earthly life once more. Grimo was then able to remember his dream life as a series of clear illusions. At no time during his synthetic life was he able to look back either upon his Earthly life or the previous events of his dream existence. He never acted from precedent, but always from instinct or subconscious impulse.

His adventures were often of most fantastic form. Naturally, his thoughts went to all those finer things in life which he had coveted. Luxuries and pleasures abounded his dream life, and music, of course, figured prominently on the heights of his visionary attainments. Grimo, as a fitting climax to his musical fame, had fashioned an immense calliope from the earth's volcanoes. He played from a central control board,

sending the vibrant, full-throated tones in world symphony over the entire Earth from the towering, piped vests capping each volcanic cone.

III.

BUT ALL THINGS come to an end. Grimo's transition back to normal consciousness was much like a reverse of his induction into the dream life. He stood once again at the edge of the abyss, while far below the limitless gray fog crept to the very horizon, which was remotely distant and un-Earthly, like the horizon of Jupiter might have appeared. Again, the lonely, nameless terror gripped his soul, and he was aware of a descending darkness. Far behind him, in the remote distance, shone a light. This time, he appeared to have more command of his physical self, and he went winging away from the abysmal gloom like a floating spirit on wings of thought.

The light grew and became more lights. There were several blazing suns. Clouds came between, blurring and shutting off the light. Sounds reached his ears. The awesome silence had fled in company with the darkness. He commenced to see objects plainly. The blazing suns became the lights of the laboratory blending their bright rays upon him, and the clouds were shifting figures in gray robes and cowls. After a two-year lapse of rational thinking, Grimo's mind was a bit fuddled and confused. The figures moving about him were gigantic.

One of them bent over and addressed him softly, interestedly. "How do you feel, Grimo?"

"Where—what am I doing here?"

His voice was a strange one. Never before had he heard those flat, leaden accents. Had it not been for the fact that his lips moved and his brain had framed the counter-query, he would never have believed that he had spoken.

"You are returned from the synthetic lifetime. Do you not remember?"

The Asurian's eyes widened a bit, and Grimo felt the power of the other's mind. Memory—as though forced upon his plane of consciousness—returned with a rush. The Asurian smiled enigmatically.

"You remember, Grimo?"

"Yes! But it has been so long!"

"Only two years."

It was at this point that memories of the dream life coordinated. Grimo could not believe that he had lived so much in that little time, yet he knew that, undoubtedly, the Asurian spoke the truth.

"I feel strange—not like myself!"

Again the Asurian smiled mysteriously. His fellow priests stood patiently in the background.

"Arise, Grimo."

Haltingly, and lacking confidence, he sat up. The table on which he lay was a very large one, and a chaos of scientific instruments and paraphernalia surrounded him. He shut his eyes, rubbed them vigorously with his knuckles, and then opened them again. Things still appeared too large. Something was wrong with his perspective. The Asurians towered to twice their normal height. He blamed it on his unrecovered senses. A hand gripped his arm gently—a colossal hand which helped him down off the table. His sense of touch was aberrated, too, he told himself. He had blamed it all on his eyes.

"I am not myself," he said, gazing up into the cowed face of the towering figure. "You are a giant, it seems. When shall I be rational again?"

Grimo's own voice alarmed him; it bore so faint a resemblance to what it should be. He was completely bewildered; for how could everything be so out of proportion when his mind functioned so logically in its reasoning.

"You are rational, Grimo," came the soft reply. "You are your new self.

We are not large. We are as we always were."

THE ASURIAN talked in puzzles. Grimo found himself more completely at a loss than ever. Out of nowhere flashed an inspiration. Had his brain been transferred to another body? He had heard tales of such work by the Durna Rangué. He glanced quickly at his hands. No, it could not be. They were the same hands—slender, soft and shapely. There were the same characteristics even to a time-blued scar.

The priest of the cult had raised his voice. There came a pattering of many feet down the corridor, and into the laboratory hurried several men. They were not like the Asurians but were of normal proportions, like Grimo, who glanced back at the priests to see whether his befuddled senses were through playing him tricks. The Asurians loomed as large as ever.

Something in the glum, emotionless faces, the clothing and general demeanor of the new arrivals tickled Grimo's memory. Was it in the dream life? He dismissed the possibility. There was no confusion of memory. They antedated his synthetic lifetime. When two more of them entered carrying long, silver rods over their shoulders, however, the devastating truth flooded his brain and left him stunned.

They were the dwarfs—the midgets he had seen upon entering the sanctuary! How had they grown to his size? No—he was their sire! The Asurian's sinister smile was explained. The cult had made him a dwarf. But with what devilry? Meanwhile, the dwarfs who had entered waited for no formality but proceeded to clothe Grimo's naked body with trappings similar to their own. His dark face became impassioned.

"How did I get like this?" he demanded almost tearfully.

"Through atomic compression," was the concise and illuminating reply.

"Your body is several times reduced from its original volume, and your height is but half of what it was, yet you are as heavy as you always were. The electrons are close together. The diameters of their orbits have been shortened. The atoms of your body take up less space."

"You devils!" raged Grimo, lifting his puny fists in shaking rage. "You promised no harm would come to me!"

"No harm has come," the Asurian replied. "You were promised exemption from vivisection. Of course, besides the atom compression of your body, a few minor operations and insertions of glands were made, as in the case of all the dwarfs we make with this process. But you will find these alterations greatly to your material benefit."

As in the case of the threatening money lender he had killed, Grimo suddenly saw red. The memory of his tall, handsome body, and the crushing realization that he was now but a puny miniature of that physical perfection, blinded his reason.

Spitting a lurid curse, he launched himself straight at the hateful, saturnine face of the Asurian, his hands reaching for the throat beneath the wings of the gray cowl. He was too enraged to be surprised at the consummate ease with which he sprang to this comparatively great height, his momentum forcing the surprised priest back into the arms of his gray-robed brethren.

Grimo's fingers dug murderously into the soft throat with a strength he had never known before, and then many hands seized and pulled him off, while blazing eyes locked his own in a terrifying, numbing embrace, paralyzing his brain and all bodily activities at the base of their mental stimuli. He fell back to the floor and felt the finger of death hovering over him. He was aware that the dwarfs with the silver rods had leveled them at him menacingly, waiting

for a sign from their masters. And their consciousness left him.

IV.

HE came to his senses in a small dungeon. There seemed to be a subtle difference in the shade of illumination employed there, or else he imagined it. Was it darker here than in the corridors and laboratories? He found food and water. He ate and drank and felt better, realizing that his attack upon the Asurians had been both foolish and hopeless. His escape from death had probably been a close one.

When he had eaten and drunk his fill, the illumination of his dungeon turned suddenly to a dull-green cast, and he realized a growing change in his mental attitude. Thoughts from an advanced intelligence commenced beating into his mind, impressing him with the fact that the Asurians were his masters, that a mere thought could render him helpless and that forever after he was their slave.

Grimo's head throbbed and nearly burst from the intense power of concentration directed upon him, and he was almost ready to go mad when the light returned quickly to normal, and the grim, oppressive emanations were gone. He lay down in exhaustion upon the bare, stone floor and lapsed into blessed sleep.

Again on awakening he found food and water in his cubicle. There were no doors or windows, no apertures whatever, but he did not pause to wonder. He remembered that long-gone day when the proselyte had brought him to the sanctuary. Openings had appeared and then gone almost magically. He was hungry, and he ate greedily.

Again, the light changed to green, and the implanted fear seized him. Once more his mind became the concentration point for an object lesson. He was the property of the cult, and there was no

escape. Unnamable fear was stamped indelibly into his subconsciousness. His brain neared the breaking point, and exhaustion and relief blended themselves in the chaos of his mind as the emerald light faded out.

How long he remained in the dungeon in perpetual silence and isolation, Grimo had no way of knowing. The green light came and went with its periodic intervals of torment. Often, Grimo feared that he would go mad from the devilishly ingenious torture. Fear be-

came his principal obsession. He feared the cult; he feared life; he feared death; he feared the thoughts of escape; and above all he feared most the return of the green glow with its indescribable burden of mental anguish.

These periods of changing light and mental stress invariably returned after Grimo had eaten, and in desperation he fasted. This gave him mental relief, for as his food remained untouched just so long did the green light fail to return. But Grimo's physical agony came to sur-



*And then sud-
denly the awful
roar was gone.
He staggered
through—*

pass even that of the mind, and Grimo ate.

Inexorably, the emerald glow crept into his cubicle with all its train of horrors, and Grimo endured his mental torture. Again, he fasted. This time, however, the martyrdom was to no avail. The green light came again, regardless of the fact that Grimo's food had remained untouched. This fact, more than anything else, may have forced Grimo's mind to the breaking point. He reeled into delirium, oblivion. Or Grimo might have succumbed more easily because of his fasting, for it is probable that during the period of the green brilliance there was a tremendous brain consumption of calories. His mind broke from the mental hell, and he fell into darkness.

RECOVERING his senses, he found himself no longer in the dungeon. Instead, he was in a broad chamber with the little men of the cult, glum of face, stupid of expression, little more than flesh and blood automatons ready for any call the Asurians might make. Grimo's first thought was of the green glow. That and terror had been his last, fleeting impressions. The matter-of-fact behavior of the dwarfs, however, dissipated his previous fears. He had begun to realize, in some mysterious manner linked to the green light, that obedience and servility were his only assurance against a repetition of mind torture.

The dwarfs paid him but scant attention. He was one of them. While he pondered the situation, something black fitted out of a small aperture near the ceiling. There was a dismal, croaking repetition.

"Attend below! Attend below!"

Grimo recognized the black, circling object as one of the terseg birds of the cult. Native to the planet Mars, the tersegs were employed by the cult as emissaries. Small parts of human

brains had been transposed to the heads of the birds, giving them a limited intelligence. They had also been given speech.

Instantly, the roomful of dwarfs became alive and active. Little jackets which had been thrown aside were hastily put on. One of them rushed over to where Grimo sat watching them.

"Come!" he urged sharply. "The masters call!"

Grimo arose and followed them. The dwarfs hurried through a bewildering series of cross corridors and were joined by another detachment. The latter carried the long, silver rods Grimo had seen before. Both groups hurried down several broad flights of stairs and along a corridor into a high-ceilinged chamber which Grimo recognized as that of the coffin baths. Several of the gray-robed Asurians were there. Orders were quickly given. Several rows of coffin baths were to be rearranged.

Quickly, the dwarfs set to work, Grimo finding himself hustled to one of the oblong receptacles which now towered above his head. There was a companion to help him. The latter barked at him to take one end while he lifted the other. Grimo faltered in the face of such a colossal task, looking for further aid. Two of them could never lift the heavy bath with its human burden. He had expected at least four of them to a single receptacle.

"Lift!" snorted his diminutive companion disgustedly, suiting his words by actually lifting one end of the coffin bath.

Grimo's surprise at this exhibition was surpassed only by the amazing results he himself obtained. The coffin bath lifted easily. Its weight was surprisingly small. Even had it been empty, he could never have believed it to be so light. How easily he and his little companion carried and set it down where an Asurian indicated. He sus-

pected the scientific sorcery of the cult. A substance for partly nullifying gravity had been applied to the coffin bases, he believed.

The new order of the coffin baths was soon accomplished, and the dwarfs filed out of the vast chamber. As if drawn by a magnet, Grimo suddenly found himself gazing into the eyes of an Asurian who towered above him, his arms folded in the long, loose sleeves of his robe. As if the eyes had spoken silent and commandingly, Grimo found himself walking until he stood directly in front of the supercilious figure.

"There are many things which you have seen which puzzle you, do they not, Grimo?"

Grimo found his voice strangely forced and prompted by queer impulse. "Yes—especially the lack of weight to the baths we lifted."

"But they are heavy, Grimo. Let me inform you that like all the dwarfs you are now at least four times as strong as you were when you came to us of normal stature. In your body have been grafted the glands of the giant ants of Mars. The reduced volume of your body and its greater density made you better adaptable to the ingrafting of these glands."

Grimo had by now seen too many surprising things to be greatly perturbed by this startling announcement, yet he marvelled at the ingenuity and power of those who held the Earth a captive planet and exerted a masterful direction over lawless legions of greedy, quarrelsome cutthroats. His original stature was reduced to half, yet he was as heavy as ever and his strength had been multiplied by four. He was a little Hercules—a miniature of strength and muscular power.

V.

UPON another occasion, not long after the revelation of his new-found strength, Grimo was once more accosted

by an Asurian. This time, he found himself engaged in a queer conversation. The Asurian questioned him, and Grimo's answers did not seem to originate from his own mind; they were seemingly prompted and directed by his interrogator.

"Grimo, you are different from the other dwarfs which we have made. You realize this?"

"I have known it."

"The brains of the others were dulled by the atom compensation. For clearest thinking, it was never meant for electronic association to be too closely constricted among the cerebral atoms. You were subjected to a varying process, Grimo, which nullified this injury. You are a new experiment and stand as a trial for a new theory."

"For more than two centuries, we have made dwarfs the old way. They are faithful servitors, lacking any initiative or ideas of their own. The first results of our new experiment were discouraging to us. There was your attack, you know, when you were recalled from the dream life. But you learned a lesson afterward. Have you forgotten?"

"I have not forgotten."

"Who are your masters?"

"Those in gray."

"What if they tell you to die?"

"Then I must die."

"What is worse than death?"

"The green glow which bursts the thought channels."

"What is it you would like most?"

"To escape."

"Do you expect to realize this ambition?"

"There is no escape."

"What is the price of peace in the quietness of our sanctuary?"

"Obedience."

The Asurian thereupon left Grimo, who had broken into a cold sweat, his brain once more akin to the oppressions it had felt beneath the emerald bril-

lance. He shivered in fear, his mind shrinking from a nameless dread. How horribly this nightmare had leaped forth to threaten him with its stern warning.

At a later date, another cryptic threat was dropped his way. "You have many things to learn, Grimo. It would be well for you to cultivate at least an indifference toward all that you see, rather than the fear of abhorrence you carry. You have only to fear your mistakes or misguided intentions. A brain operation may yet have to be performed upon you. Certain instincts and aversions still linger, and we find them inextricable to our mental persuasion. You, perhaps, have the self power, if you care to exercise it. We shall see. Let it be sufficient to say, however, that our older methods of atom compression did not produce this fault. We consider you yet unfinished."

GRIMO had no way of computing the time which passed. There was no night or day in the sanctuary, only the ever-present diffusion of light from the walls and ceilings. Any hints as to time were always evasively disregarded by the Asurians, who stressed the lack of importance given time.

To them, time was important only as a matter of coincidences. Yet Grimo knew that a long time had passed—a matter of years. He had lately become aware that his sleeps were longer than they seemed to be, for he heard his little companions tell in their simple way of events which had transpired since his last waking, events which must have consumed considerable time. He regarded his reflection in a search for age on his diminutive face. He gained no clue in this manner. Grimo worried over the timelessness of the sanctuary.

His duties were many, and more varied than those of the other dwarfs. He did practically everything they did and more; yet he never carried a silver

rod. These, as he had guessed, were weapons. Their use was typical of the intelligence which had conceived them. They caused human beings to explode, sending their charge of power to the adrenal glands. That they were rarely used proved to be the rule. Occasionally, a creation or monster of the cult ran amuck, or became mentally unmanageable by the Asurians.

Grimo well remembered how the rods had been leveled at him that day when he had been returned from his synthetic lifetime and had attacked one of the priests. Many times since then he had wished that the end might have come this way. He had not accepted his fate as complacently as the rest of his little companions. He still retained his own individuality, although any initiative he still possessed was bound by terror and a lack of faith in his ability. He had the Asurians and their green torture to thank for that.

The sanctuary was more than a prison. It was a portion of another world, a vast catacomb of gray-ceiled dungeons of varying dimensions, a nightmare of horrors and shadowless gloom. How Grimo longed for a sight of the blue sky, the falling rain, a bit of earth, a surcease from the unnatural luminescence pervading the sanctuary. How he would have sobbed out of pure joy for but a moment's exchange of greetings with a normal individual. If there was only some one to whom he could tell his strange story, some one with whom to trade confidences. Strangest of all was his lack of musical interest. Gone was the musical-tempo to which his life had swung. The cult had somehow robbed him of all this.

He knew why he was never allowed to carry a silver rod like the other dwarfs did on various occasions. The cult dared not trust him. Often he was subtly aware of the invisible minions of the cult, feeling that he was being watched, being spied upon. Sometimes

it was intuition of human presence, again it was a slight sound. Once, he walked into one of them.

Particularly, he loathed the foul, hideous insect men fashioned by the cult. They were hybrids—men's bodies, arms and legs surmounted with the heads of enormous insects. But although he loathed them, Grimo at least did not fear them, for he knew himself to be more than their match. Once he had seen a berserk dwarf seize one of the insect men by its cruel, snapping mandibles and easily break the strong jaws. The sanctuary was the devil's own workshop. Whatever Grimo's wrongdoings had been, he felt that he was paying ample penance.

VI.

THERE CAME a strange day when Grimo awakened under queer circumstances. A subtle intuition that he had slept longer than usual was his first sensation. That, however, did not surprise him. What alarmed him, and put into his mind the possibilities of an indefinitely long coma, was the changed conditions. The chamber in which he awoke was different from that which he had known. He had been moved to another section of the sanctuary while he slept. So Grimo believed at first, and he wondered at this new deviltry. Where was the motive? Were they going to operate on him like they had threatened? Then he noticed that the dwarfs were strange ones. They were regarding him curiously.

"Where am I?" he asked.

"You are a new arrival," one of the little men answered. "Where are you from?"

"From? From? Then I am in another place! This is not the Cleveland sanctuary?"

"This is the Montreal sanctuary."

Grimo rubbed his head. It was all so weird and unwordly, yet how sym-

bolic of the Darna Rague, this transfer of his.

He found the customs and arrangements of his new abode much like that of the old. His duties were much the same, the inscrutable and supercilious intellect of the priests of much the same forbidding and compelling quality. With the rest of the dwarfs, Grimo performed the tasks imposed upon his Herculean strength.

The Asurians here, as in Cleveland, recognized his superior intelligence and gave him duties above the possible performance of his dull-witted companions. He aided the Asurians themselves in their laboratories. He saw many awakenings from the synthetic lifetime of the coffin baths, even as he himself had been called forth from his reward to take up the grim duties of the cult.

How strangely had the Asurians reversed the ancient theories of theology. Originally, a life of drabness had held promise of joys in a heavenly immortality. The Asurians had cleverly synthesized such a promised existence for the lure of the morally weak and dispirited humans lacking the courage to face life, who little thought or cared for what might happen to them beyond the term of their synthetic lifetime. In that, they were much like seekers of the drug.

That the synthetic lifetime was the cult's means to an end rather than any institution or ultimate goal, Grimo realized. How he loathed the chamber where the coffin baths lay row on row. Beneath the gray veil of the tenuous vapor lay human bodies wrapped in deathlike semblance. How disgusting he found it to plunge his arms into the nerve-tingling essence at the command of the Asurians, groping for the cold and apparently lifeless body!

What a horrid sight he found it, even when familiarity had bred contempt, to lift the head and shoulders of a dream sleeper, to watch the gray mist, thick

and heavy, rolling from the ghastly features. Grimo had helped to revive so many of them in the laboratories that, had he tried, he could have performed the entire operation alone. Once the glow of life had sprang forth in the still bodies, Grimo found his task less revolting.

He loathed the coffin baths and their grisly, near-corpses, but for the aging chambers of the cult he knew real terror. And Grimo could not have told why. It was like a deep premonition of danger. It may have been the legend of Ern Hantel, who had escaped from the interplanetary prison on the Martian moon of Phobos more than two hundred years ago, when Mars and Venus were but colonies of the Earth. The man had escaped to Mars and had taken what he thought was refuge with the cult. He had blundered, by mistake, into an aging chamber and had staggered out an old man.

GRIMO avoided the duties of the aging chambers whenever he could manage it, leaving them to fellow dwarfs less imaginative and more stoically indifferent than himself. But such duties were fine and exacting ones, and Grimo was much in demand. Infants developed in the laboratories were placed in a chamber and subjected to a concentrated environment, where their bodies underwent a swift revolution of cellular metamorphosis. Into the blue haze of the chamber were infused chemical ingredients for the rebuilding and rapid replacement of cells. In this manner, an infant became an adult in the short space of a few minutes.

The Asurians were especially careful never to subject themselves to any chance accidents resulting from the experiments. The dwarfs had been created for that and other purposes. The priests of the cult supervised and operated the controls. Sometimes Grimo was given that responsibility—a

privilege denied the other dwarfs. At such times, Grimo felt more secure in watching one of his little companions enter the feared aging chamber.

Grimo's premonition came to prove itself justified. It was the closest to disobedience he had ever come since his revival from the synthetic lifetime. An infant had been brought from one of the laboratories, and Grimo had placed it in the prepared chamber, hurrying out to escape the blue haze which he knew would soon follow. The Asurian at the controls smiled derisively.

"One should govern his imagination—not let it govern him," he remarked sagely. "To govern it thoroughly is to find oneself on the road of accomplishments."

Grimo felt that first of all he would rather find himself on the road of safety. The accomplishments, he mumbled as he closed the door to the aging chamber and fastened it, were all very fine theory, no more.

He was aware of the humming, vibrant power which the Asurian's hand had loosed at the controls. Both awaited the expiration of time allowed for the aging and growth of the infant into an adult—an adult with intelligence less than that of an idiot.

If the body was perfect, a brain transposition might follow; otherwise, the body was preserved and used for spare parts, the brain itself of more or less negligible value unless developed and taught in a separate container by itself. Brains developed in this manner lacked much in experience value. Memory channels of brains once attached to bodies had been grafted upon these synthetic creations with only a minimum of success.

Grimo had seen them in their transparent jars of amber liquid on the shelves of the laboratories. They generally lacked less convolutions of surface extent than the normal human brain. The Asurians were well aware that

size constituted no definite yardstick of intelligence. A smaller brain with more wrinkles in it generally possessed greater intelligence than larger ones.

Grimo waited outside the door of the aging chamber, while his gray-hooded superior stood at the wall controls. Grimo watched for the downward movement of the priest's hand, which would mark the cessation of the singing drone. The hand jerked down, and almost simultaneously Grimo's hands fell upon the door lock.

He waited for the humming to lower in tone and volume, but there was no variation. It maintained its same high level, and he dared not open the door. He glanced at the priest. For once, he saw an Asurian betray symptoms of nervous haste and perplexity. The priest of the cult jerked lever after lever frantically. His eyes blazed and transfixed Grimo with smoldering intensity.

"Open the door!"

SOMETHING had gone wrong. The controls had become useless.

"I can't! Not until you stop the process!" Grimo expostulated.

"Open—that—door!"

The terrible gaze bent on Grimo exercised the muscles of his unwilling hands. He unfastened the door and drew it around reluctantly. A wall of blue haze filled the doorway. The humming drone became intensified as the aging chamber throbbled to the unremitting release of power.

"Go in there and save the subject!"

Grimo's dark face blanched in fear. "No! No! It is death! Death by old age!"

"Go in! Bring out that subject while there is yet time!"

"It is death!" Grimo wailed.

"Then die!"

"I can't! No! I can't!"

"Go!"

In that single word hissed by the threatening Asurian, Grimo perceived a

dim recollection of the green torture and what it meant. With a sob of anguish, he faced the wall of blue, vibrant haze, stepped inside and allowed it to swallow him.

Convulsions shook his body. Desperately, he held one sole determination. He must reach the subject and drag it out of the horrible room. He could not see, so thick was the azure mist which swam before his eyes. He could only stumble, grope, feel in the general direction of the subject.

The humming was now a roar, which entered his head, consumed his body. With his shaking hands, he felt for and found the subject, which was now fully grown. In dumb terror, Grimo lunged through the blue veil with his burden, fearful that he might miss the door, proceeding blindly from memory, the awful consequences of losing his way graphically seared in his consciousness.

Suddenly the blue eternity was gone, the sobbing roar once more a vibrant hum. The current of destructive and rebuilding forces no longer clutched him. He found himself staggering into the corridor. The Asurian at the controls seized the subject from his arms. He tried to focus the blurred figure of the Asurian. The latter's image became clear.

"How—how long was it?" he gasped.

"A minute—perhaps, Grimo."

"I am old—old!"

Again there was a smile of supercilious disdain.

"In your imagination. Go and look at yourself."

Hurriedly, Grimo departed to consult his reflection, hopeful of the Asurian's words, fearful because he knew well the power of the aging chambers.

He looked at his hands. There was little, if any, change. It was a thoroughly frightened face which stared wildly at him from the reflector.

Fear yielded to relief as all thoughts

of the gray hair, watery eyes and wrinkled face became dissipated by actual proof, yet misgivings and uncertainty returned as he noted here and there a stronger impression of character than his face had been known to betray. The mouth seemed to be set a bit firmer. Grimo's hair was as black as ever, yet the ends were curled strangely as though each individual hair had been singed. It was the same with his eyebrows, lashes and a slight growth of beard which had magically appeared.

He was older. He had expected that, but how much older it was difficult to determine. Nowhere could he find a gray hair. He had been in his early twenties, so this fact proved little more than to assure him that he had suffered less than a generation of added age.

VII.

THE SHOCK from his exposure in the aging chamber held Grimo in its grip for a long time. The shock was both mental and physical. During that time, he saw service in several sanctuaries, always transferred during a period of sleep, never knowing when he fell asleep but what he would awaken in a new and stranger place than the one where he had fallen asleep.

The ways and means of the cult were mysterious even in the transference of their minions, and since entering the sanctuary at Cleveland Grimo had never seen the light of day.

Grimo came to believe that he was at least fifteen years older through his experience in the aging chamber. He knew himself to be an experiment of the cult, yet the brutal disregard shown for his safety in that incident shook the bitter calm he had assumed.

He had come to regard himself as useful to the cult and had made ineffectual efforts to steel himself against the horrible things he saw, secure in the belief that the cult would allow no harm to

reach him. But his security was shaken, and in the more secret channels of his mind Grimo turned over one desperate plot of escape after another.

None of the cult's minions was ever allowed near the chambers fronting the deeply embrasured windows. These were occupied solely by the priests of the cult. In the gray, grim sanctuaries, theirs alone was the privilege to look upon the light of day. Grimo knew escape to be practically impossible. None of the cult's minions knew the secrets of the sliding doors.

As in the old days, as if from two centuries of habit, secrecy was the byword of the Durna Rangué. Grimo resided for a time in one sanctuary where none of its inmates knew where they were. They had all been brought there in the manner of his own arrival; they had awakened there. Sometimes Grimo shivered when he thought how uncertain was the most obvious escape from the cult, in fact the only escape which lay open to him: death. Yet the cult knew the secrets of life and death. They could bring him back and make him suffer under the green glow, or by another of their hellish contrivances, for his rashness.

He had seen so much. It was horrible to contemplate what they might be able to do. Only by a complete dissolution of the brain might Grimo be certain of peace, and even then he often wondered—doubted. Men had souls, and the Asurians were ingenious. For all he knew, his soul might even be chained to the dread organization. On the verge of madness, he banished forcibly these sinister suspicions from his mind, damning influence of such unbidden thoughts which crept into his brain to work their havoc. He regretted miserably the night he had listened to the painted picture drawn so colorfully by the proselyte's seductive voice.

Grimo's melancholy brooding came to

an abrupt end when, in the Oklahoma sanctuary, he witnessed the birth and aging of one who was to hold a terrible and fascinating influence over him, making him forget his dreams of escape.

Since his disaster in the aging chamber, his dread of it had become twofold, yet his duties were ever as exacting. Every time he saw the lever dropped to mark the cessation of the aging process, his heart accelerated in mortal fear lest the apparatus might again prove unmanageable. He knew too well what that would mean.

FOR A LONG TIME, there had been much experimenting in one of the biological laboratories, and Grimo had found his curiosity bluntly piqued. He was aroused a bit from his gloomy indifference. He was not allowed in that particular laboratory. That something unusual was transpiring there he was well aware. So when the order came for him to enter the laboratory and lend assistance, he did so with a curious anticipation. Then he realized the same old chilling dread, as he was briefly told the nature of the experiment.

"Another case for the aging chamber."

The square vat which held the infant was covered with a cloth. This unusual fact added further to the mystery. What new kind of monster had the cult created? And there were so many of the Asurians present instead of the usual two or three.

"Grimo—there must be no mistakes about this. The aging chamber must be carefully prepared. Much painstaking work can be quickly ruined."

The deadly tones pierced Grimo's marrow with their suggestive portent. He trembled perceptibly to the further ominous warning.

"If the controls fail, you are not to fail."

Grimo attempted a timid inquiry, but

his tongue clove to the roof of his mouth.

"We have worked long and patiently on this new subject. We cannot afford any waste. Tests will be made first to insure the proper functioning of the aging chamber. No one of our servants knows the preparation of the chamber better than you. Employ extreme care. I urge you most earnestly."

"What—what age?"

"Twenty years."

A grim little procession of dwarfs marched in, two of them bearing the explosion rods. The others shouldered the vat carefully. Fear and mystery held Grimo as he joined the silent procession to the aging chamber. Instinctively, he found himself well back against the wall of the corridor opposite the aging chamber as the sad, singing drone welled into its high pitch of vibrant, throbbing power. The Asurians were testing it thoroughly. There appeared to be no fault with the controls. The door was unfastened, and Grimo entered. There was always a strange, burned odor in the place.

Speedily and accurately, Grimo prepared the chamber, returning to the corridor as rapidly as he dared, trying to conceal his agitation. He noticed with surprise that a second vat stood beside the first. This one was unveiled, however, and the infant subject could be seen within.

"Two? Grimo raised his eyebrows questioningly.

"One of them—this one," an Asurian informed him, pointing to the newly arrived vat, "will be a test for the other. We are taking all precautions. If everything does not go well with the first, then our new experiment shall not be prematurely sacrificed."

UNDER DIRECTION, he removed the subject from its vat and placed it in the aging chamber, quitting the place



*"She is for no man, Grimo. Wait,
and you shall see why."*

hastily and fastening the door. He shot a startled glance at the covered vat standing close beside its open companion and wondered what it contained.

The Asurian at the controls released the aging forces, and the next few minutes were silent ones in the corridor. The humming had no more than slowed to a low, dying note when Grimo was

urged into the chamber. Purposely he balked, presumably fumbling with a stubborn door catch, actually stalling until he felt all vibrations and emanations to have been fully dissipated.

The Asurians were all too callous of his welfare to suit Grimo. It had occurred to him some time ago that their experimental interest in him had waned. He was to them but one of their many strong dwarfs, a dwarf with a much broader intelligence, however, than his



fellows, and therefore somewhat more useful.

All these things Grimo swiftly realized as he fumbled with and finally opened the door of the aging chamber. He hurried to the low dais in the chamber's center and found the subject a full-grown man, a groping creature with a stupid, vacuous face. The eyes blinked at him in dull wonderment while the mouth uttered weird, idiotic babble—not words, but a conglomeration of

sounds. The burned odor of consumed chemicals was stronger than usual. Grimo picked up the subject without delay and made a rush for the corridor.

He nearly bumped into an Asurian entering, and he drew back in sheer astonishment at the unexpected sight. As for the Asurian, he reviled Grimo and heaped execrations upon him for nearly running into the precious burden he carried. The vindictive eyes glared malign hatred of Grimo's carelessness,

as the latter avoided him and hurried into the corridor.

The second vat lay open. The Asurian had borne the mysterious subject into the aging chamber himself. Only extreme importance could have occasioned this unusual procedure. He wondered. His fleeting glimpse of the priest's burden had revealed but an ordinary infant. That there was something unusual about the infant, and that its formation and initial growth had been under careful surveillance and attention, Grimo realized.

It was epochal for an Asurian to risk his immortality in an aging chamber. As Grimo well knew, and the cult had long realized, the aging chambers were treacherous and undependable.

VIII.

AGAIN a tense silence in the corridor accompanied the drone and hum in the aging chamber. This time the minutes seemed longer. The vibration whined to a stop. For a moment no one moved, and then Grimo felt penetrating eyes of the Asurians upon him. It was for him to enter the aging chamber. Was there danger for him other than that which he feared?

He unlocked the door and swung it back. As he stepped a hesitating foot across the threshold, and adjusted his sight to the interior of the chamber, one of the waiting priests dropped him a warning. Something about the plain, matter-of-fact words struck Grimo as sinister.

"Do not let her finger nails scratch you."

Then he saw the subject, and he stared in admiration at the unbelievably perfect female body stirring slowly to a sitting position upon the dais. Every detail was a masterpiece of exquisite beauty. But why?

Grimo asked himself that question of

the cult's motive even as he stood there in dumb fascination and stared. Her beauty beggared description, yet with an unexplained pang of regret that there should be so damning a flaw in this creature of physical excellence and voluptuous beauty, Grimo saw her lovely eyes blank of expression, no emotion, no inkling of intelligence in her finely chiseled features. She was less than an idiot.

"Bring her out."

With a strange mixture of feelings, Grimo picked her up as carefully as though she had been a fragile flower of such great value that he feared he might shake loose a petal. He had forgotten the dread and terror he felt while in the aging chambers; he had forgotten his fear of the Asurians.

He brought her forth into the corridor, where the Asurians gathered about her in murmuring admiration, admiration which Grimo readily recognized as entirely scientific in nature, much like that of an artist who has created a masterpiece.

"All is well—so far."

Grimo caught the significance of the remark. She was to be given a brain transposition. What kind of a woman would she be? That would be dependent upon whatever brain the Asurians selected from the ranks of the living dead in the coffin baths. They might select parts of more than one brain. Grimo thought this not unlikely. He kept his thoughts to himself, however, until they had returned to one of the laboratories where Grimo was instructed to set down his lovely burden upon an oblong table.

"What—why did you make her? Why is she so beautiful?"

"Aonis will some day, perhaps, become a proselyte of the cult, a most successful one, Grimo. Already, without guile or intelligence, she has conquered you. Wait until we give her a brain, then see."

THE BRAIN transformation of Aonis required a great deal of care and labor, for, as Grimo had expected, small portions of many brains went into her mental structure. During these operations, he assisted in many ways. Before the scalpels had commenced their grim work, Grimo had stood and looked down at her beauty as she lay in a state of near death. No longer did the horrors of the cult obsess him. The lovely vision of Aonis crowded out all else.

He saw denizens of the coffin baths brought in and robbed of their brains, which were vivisected for the removal of certain parts for the cranium of Aonis. The remainders of the brains and bodies were preserved and retained for further use.

Grimo himself sought out and carried from laboratory shelves to the Asurians many glass jars with brains floating in amber liquid. He saw small parts removed and used, never batting an eyelash, so intensely interested was he in the outcome of the experiment. His former aversion had vanished, for Grimo had fallen hopelessly in love with Aonis. Thoughts of her held him enthralled while awake, and in his dreams he often beheld her fully recovered from the mental transformation.

One particular which puzzled Grimo, about which he was unable to elicit information from the Asurians, concerned the extreme care they took of themselves and of him after performing any operation on Aonis. There was always a strong, bitter drink for him after he had performed his services, and before he touched her he must bathe his hands and arms in an aromatic fluid which rapidly evaporated or sank into his pores. The Asurians never performed these ablutions, but they always finished with the drink. He had never seen them do this before and wondered at the significance.

The time when Aonis' swiftly-healing wounds were gone and the scars cleverly

removed proved none too distant, and Grimo was on hand to see her brought back to consciousness. An air of tense expectancy was manifest among the usually imperturbable Asurians. They were about to witness a new step in the long career of the Durna Rangué. He of the gray robe, under whose supervision Grimo found himself, was moved to confidence with him on this momentous occasion.

"What will she be like?" Grimo ventured.

"Irresistible to men other than ourselves—who created her and who have lived as immortals so long—and deadly. Aonis is a double experiment."

AONIS lay with her head on a square block in the center of the laboratory. One of the gray-clad priests made a deft movement by the table and down from the ceiling came a ten-inch globe. As it came to a slow stop just above her upturned face, a dull-orange glow suffused it. The block on which her head lay glowed responsively. Even as in the revival of the dream sleepers from the coffin baths, Aonis' features turned vague and shadowy, her brain revealed as both flesh and bone disappeared from sight.

As one man, the Asurians stepped forward for a critical examination. Several more adjustments were made, and the rest of her body became indistinct, revealing the spinal cord and its network of subsidiary nerves. Two cylinders were placed opposite each other, one at each end of her body. Flames of blue and green leaped from cylinder to cylinder, enveloping the brain, spinal column and its delicate tracery of nerves in a crackling brilliance.

When the enervating forces were shut off, and the body of Aonis became once more visible, Grimo saw that a flush of life had replaced her deathly, waxen pallor. She was again as he had first seen her in the aging chamber.

His heart beat madly as she opened her eyes. They were dark and softly compelling. No longer were they without the luster of intelligence. An infinite longing swept over Grimo, but almost immediately, however, he felt a hand on his arm and allowed himself to be drawn back from the table. Aonis arose to a sitting position, her dark, shimmering tresses tumbling about her shoulders. Grimo, irked at the restraining hand, turned to gaze into the magnetic eyes of an Asurian.

"She is for no man, Grimo. Wait, and you shall see why."

"Who—who was she?" Grimo asked in awed whispers. "Her brains, I mean?"

"It matters but little who the individuals were, for all memory other than that which is subconscious has been carefully erased. She is governed by her instincts. We have helped to prepare those."

Aonis opened her shapely mouth and spoke. Her voice was soft and tinkling, suggestive of little bells, rich with ecstatic lure.

"What would you have me do?"

The words were evidently provoked by an instilled impulse of the Asurians. It was as if Aonis' newly aroused and slightly confused brain were following the lines of a written play.

"Arise, Aonis," was the soothing response, "and cloak your celestial beauty from the eyes of men, lest they go mad from the desire for you."

Slowly and majestically, Aonis slid her sinuous body from the table and approached the Asurian who held for her a diaphanous cloak which he gathered about her shoulders and fastened together with a bit of bright metal. Grimo now saw that from her magnetic eyes and voluptuous lips there radiated an essence of evil. The cloak only served to enhance, rather than conceal, her seductive figure. How he longed to clasp

her, full-grown woman that she was, in his tiny, strong arms.

The languor of her eyes held his attention. Here was hypnotism of a different sort than that exercised by the Asurians. She was maddeningly entrancing, the most beautiful woman ever to grace any of the three planets. How diabolically clever these Asurians were. Little wonder it was that they held the mother world in their power and its sister worlds at bay.

WHILE he gazed in awed fascination at Aonis, he was but partly conscious of new arrivals in the laboratory until they stepped into his line of vision. A small guard of dwarfs with silver rods had entered, escorting a man whom Grimo recognized as recently revived from the synthetic lifetime.

The face of the aroused sleeper bore a dull, hopeless expression. A beautiful dream bubble had burst. From paradise, he had awakened to find himself in the pit of perdition, a pawn in the hands of merciless, scientific savants. Grimo somehow sensed an obvious connection in the new arrival and Aonis. Here was a further experiment. Her powers were to be tested. And Grimo was right.

He watched the face of the neophyte who now saw Aonis for the first time. The mournful introspection vanished, and there followed a brief interim of astonishment. Then the vacant eyes grew alight with languorous ecstasy, yearning. Aonis turned her attention slowly upon him, and Grimo also felt the irresistible seduction, the awful attraction.

With ineffable sweetness, she spoke. "Who is he?"

"Your lover, Aonis," replied the smooth voice of her prompter. "He longs for the embrace of your arms, the touch of your lips."

The face of the neophyte was now agleam with the delights of anticipation. He stumbled forward, slowly. Aonis

offered her arms invitingly. The neophyte clasped her supple, willowy body as she arched her head to kiss him. The moisture glistened from her quivering, sensuous lips. Grimo's own lips tingled in ecstatic anticipation as he watched the arms of Aonis slip about the neck of the neophyte. At that moment, he would have traded his soul for an eternity in Hell, just for a moment's contact with Aonis' lips. He felt the hand of the Asurian tighten perceptibly upon his arm, as if his thoughts had been divined and he was being warned.

IX.

STILL under the magic of Aonis' spell, Grimo saw her lips meet those of the neophyte, saw them cling, saw the neophyte freeze like a statue, his half-turned face one of divine rapture. For nearly a half minute, Aonis held the neophyte while Grimo gazed in envy, conscious of the terrible power of attraction which was hers. Then she released him, and the neophyte stood where he had been left, unconscious of the presence of those about him, as though he alone existed.

Aonis drew back and stood silent and waiting, as if she listened to a voice in her mind which was not her own. Grimo was well acquainted with the voice. He had listened to it, often against his will, and had obeyed reluctantly the imperative commands it issued. But Aonis displayed no reluctance. Hers was the perfect mind, adapted to the peculiar needs of the Asurians. Grimo wondered if she possessed initiative of her own and what her instincts would be like.

The attentions of the Asurians were even more intently focused than were those of Grimo, but not at Aonis. They were watching the neophyte. For fully a minute or more, the neophyte stood as if changed to stone, and then the expression of soulful rapture faded, as if an

inner realization of strange workings had come to his attention.

Then he swayed dizzily, his eyes more hopeless than ever. He seized his body as in a sudden paroxysm of agony, and his face became contorted with pain. He fell in a twisting heap. Pain-maddened eyes mirrored his doom. He was dying, horribly. His face turned green. Grimo shuddered from the awful sight. Every muscle of the dying man twitched and shuddered—and then he stiffened as his last breath left him in a deep sigh.

Aonis stood regarding him unmoved. Grimo thought he detected in her expression a subtle hint of triumph. It might have been a reflection from the grim, sardonic faces of the watching Asurians. Whatever they had expected to see, he realized that their visions of success had been complete. He realized, too, the portent of the Asurian's reference to Aonis as a double experiment. She was the most beautiful, yet the most deadly, creature the cult had ever conceived, and it was her seductive, irresistible beauty which made her so deadly. Men might have shunned her, but they could not.

Grimo's informant broke in upon his meditations. "Now you know, Grimo, why Aonis is not for any man. She is not flesh and blood like you know it to be. Her blood is virulent poison. Death exudes from every sweat pore. To love Aonis is to love death. Her kiss, as you have plainly seen for yourself, is a deadly caress."

"But—as a proselyte— You—you said she was to become a proselyte!" stammered Grimo. "She will not only lure, but she will kill!"

The group broke up, and Grimo walked out of the laboratory with the Asurian who still held his arm, while others escorted Aonis to quarters previously arranged for her. The dwarfs who had brought the neophyte were now following a few simple directions concerning the disposition of the corpse.

In the corridor, Grimo's companion resumed the thread of their conversation.

"Aonis, as you know, was a double experiment. She is likely never to leave the sanctuary. She is merely a test, and it is probable that she will never serve the Durna Rangué in any practical manner. We consider the experiment a success. The proselytes of her type will never be given the powers of destruction that are hers. On the other hand, we may find it necessary to employ poisoned emissaries in the not too distant future. There are still more worlds to be conquered."

Grimo could scarce repress a shudder at the possibilities conjured by the words of the Asurian and by the recent test of Aonis' powers. From loving her, he had come to detest and to fear her. What a horrible viper she was. Even more deadly than a poisonous snake, he concluded, for seductive beauty and charm completely masked her horrible menace. Aonis, the synthetic vampire. He had seen the revolting sight of the dying neophyte who had turned green. He would avoid her as he would a pestilence.

THE DUTIES of the sanctuary continued in the same old way, and Grimo became more morbid than he had ever been before. The loveliness of Aonis had thrown a shaft of artificial sunlight into the drab interior of the sanctuary, and now that it was gone he found the place gloomier than it had ever been. He could never, he believed, forget the green-blotched face of pain and creeping death above which the cult's vampire had so imperiously stood, not a muscle of her inhumanly beautiful face betraying aversion or mercy. The Asurians had obliterated her conscience. They themselves were without that quality.

It was a long time before Grimo saw Aonis again, and then it was to meet her quite unexpectedly in one of the

upper corridors, where he was rarely sent on an errand. She appeared like a wraith before his startled eyes. He turned to run, but she would have it otherwise.

"Come to me," her voice tinkled sweetly.

Grimo trembled and felt himself frozen in his tracks, half raising his arm to hide his eyes from her destroying beauty. He knew her seductive charm invited a repulsive death, yet he could not resist her voluptuous spell. He had already lost himself in the magic of her eyes. A single thought obsessed his mind. He wanted to clasp her serpentine figure, to be caressed by her arms and feel her lips soft and sensuous upon his own.

Again he felt his lips tingle in anticipation, even as they had done in the laboratory when the neophyte had advanced to his doom. Though fully aware of his danger, he was unable to turn from her paralyzing attraction. He walked softly to meet her, and when he was less than a foot away she reached forth a shapely arm and hand from her cloak and pushed him backward. Turning, she fled from him down the corridor, disappearing from sight, to leave behind her but the tinkling echoes of her soulless laughter.

Grimo blundered onward a few steps and then halted. The spell was broken. It had been a close call for him. Sweat dampened his forehead, and, quite suddenly, he was aware of a strong chill which set him shuddering.

Aonis had not wanted to kill him. She may have been under command to restrain her powers. It was clear to Grimo now that she possessed initiative and a mind of her own. How typically feminine had been her impulse to attract him. He realized to the accompaniment of another shudder that he was no proof against her fascination, even had he seen a hundred men die as many

repulsive deaths beneath her virulent touch.

He still felt the imprint of her repelling hand, and he made his way to the laboratory where Aonis had undergone her brain transposition. He was glad that no one was present to demand an explanation of him. Feverishly, he mixed a concoction from two familiar vessels and drank the bitter liquid. He was taking no chances. From then on, Grimo stayed clear of the upper levels except as duties required.

X.

ON A LATER OCCASION, not long after his meeting with Aonis, Grimo attended one of the Asurians in the chamber of the coffin baths far below the ground level. There had been a change of position in two of the receptacles. The priest returned to the laboratory, but Grimo, in whom the old exploring urge had cropped up again, boldly set out through the lower levels.

He remembered a tunnel he had once seen which disappeared into darkness. He had asked why it was not lighted with the soft glow like the other corridors and had received the explanation that it was an abandoned shaft into which water had risen. It had never been finished. Grimo now set out to explore it.

There had once been an attempt to coat the walls and ceiling with the illuminating substance, for they were pale and dirty. As Grimo proceeded farther, he saw where subterranean waters had risen and left their mark. The light from the walls grew gradually dimmer. He walked on in the darkness. Soft rock ground gently beneath his feet. There was a touch of dampness in the air.

He heard a sudden rattling of stones and felt the ground beneath his feet give way. He sprang, but too late. The

impulsive leap only served to push the sliding shale rapidly downward, Grimo after it. The best he could do was to clutch the side of the hole and hang there. He heard the stones and slide of rock falling into water and not far below him.

His kicking feet found something on which to stand. It was a ledge of rock. He bent himself for the leap which would send him back into the abandoned tunnel. Then he paused. He let his hands slide downward and found new holds. Then he let his feet explore the unknown below him. He found more ledges. Climbing down, he felt a damp, mossy ledge flanking a slowly moving stream of water. His heart beat faster. Where did it go? He might become lost in a watery catacomb, but he did not care. He scented escape.

He crept along the ledge in the direction of the current's flow. Several times he encountered breaks in the ledge where it was necessary for him to cross small patches of water, keeping one hand against the wall. The water was not too deep.

Once it came up to his chin. If it grew deeper, he knew he could swim. In the dark, he turned a curve of the wall and saw a ghostly suffusion of light gleaming from the water far ahead. The light revealed the tunnel's contour. It was high and irregular, sloping lower and broader behind him. The ledge he was following stood out in dim relief. He made better time, stumbling into the water and gasping several times in his excitement and faltering hope. Where did the light come from?

Panting from his exertions and excitement, Grimo came to the end of the tunnel and rested upon the mossy ledge. He looked into the light-struck water where it slowly gurgled out of sight beneath the rock. Daylight and freedom lay beyond—and, on second thought, discovery and capture, perhaps.

HE WOULD WAIT for night. The distance beneath the rocky ledge could not be far. He could hold his breath and swim underwater. The day dragged out to an eternity. Grimo stayed upon the ledge, shivering from the damp and cold—and from mingled hope and fear. When the dim gray of dusk was gone and darkness reigned, Grimo drew a deep breath and dived for the watery passage beneath the ledge. His hands struck sharply against the bottom. He had not believed it to be shallow there. For many feet he swam, before striking upward to feel cautiously for the ledge.

In alarm, he found that he could reach above him and feel neither rock nor air, only water. He had been right in the first place. It was not shallow. His knees struck something which his groping hands readily recognized as the stream's bottom. With the simultaneous realization that he could hold his breath no longer, the awful truth struck him.

He was too heavy to swim upward. The atom compression had destroyed the buoyancy of his body. Gathering his legs beneath him, he gave a tremendous shove off the rocky stream bed, using all the tremendous strength of his arms in a mad effort to gain the surface. A trail of bubbles left his mouth as he ejected the carbonized air from his tortured lungs. His head broke the sur-

face. He gasped and had a brief glimpse of moon, stars and a bank of the stream close by him, as he sank again to the bottom.

Up the sloping side he scrambled, once more breaking the surface of the water, this time climbing out. In exhilaration at escape from the cult and from the near death of drowning, he sobbed from pure joy in thankfulness for his deliverance. For a moment, he felt himself overwhelmed from the sheer vastness of the star-studded universe above. He clutched his fingers in the mud on which he sat, exultantly drinking in the fragrance of moist earth, pure air and the scent of dried grass.

A moon nearing its first quarter rode high in the sky, while in the northern heavens above him the great dipper of Ursa Major tilted upward to drain its mythical contents down the long handle. It was October, but of what year Grimo did not know. He only knew that the gray hell of the sanctuary lay behind him. He arose, chilled and wet, and obeyed the warning impulse to run. He was free. Something, too, within him was liberated. His heart, in sympathy with the freedom of the stars and the open wonder of the night, sang a psalm of joy.



Follow the ROCKET TRAIL

by Warner Van Lorne

PROFESSOR BOGELMAN was an old man as he came down the huge steps for the last time. His feet dragged. The steps seemed endless. For thirty years he had climbed them in the morning, and come down them at night. In all that time he had not known how many steps there were. Now his mind automatically counted, fifty-two, fifty-three, and the last one, fifty-four.

He turned to look back. It would be the last time he could read the name over the huge portal, "International Society For Scientific Research," except as an outsider.

A tight band seemed to grip his heart and smother him. His eyes were moist as he turned slowly away. His life was behind him. The future was blank to be passed through with as little fuss as possible.

Until a short time before, he had felt himself a part of the great organization—part of the great system of space travel and universal achievement. But he was dismissed! Dismissed from the group of men who controlled the greatest scientific society of all time.

Thirty years of work stood behind him—work he had always been proud of. He had entered the society as a young man, only twenty-six, among the youngest of the great scientists. Gradually they had passed on to be replaced by younger men, until he was of the older group. Now he had been forced out.

For over a century the organization

had been international. No government controlled their actions. They were completely independent.

Space commerce had grown from infancy three centuries before, until it stood at the head of all industry. The scientific society controlled every phase of it, owned every ship that left port. Each member was sworn to nonpartisanship with any nation. Under control of the society itself, they knew no other master.

Scientific achievement built them into the greatest organization ever conceived, and space travel supplied the income to carry on. Revenue was collected from every nation in the world. Every existing space port had been acquired.

Professor Ronald Bogelman couldn't get it through his head that he must restrict his work to space navigation. He amassed a great deal of valuable information used for navigation. When his work proved they were carrying on harmful travel, as well as helpful, they tried to stop him.

TEN YEARS EARLIER they discovered a slight variation in the rotation of the planets. It created the first excitement in the organization in many years. But research showed there wasn't sufficient change to cause worry. Ships could change their courses enough to allow for the difference.

But Professor Bogelman wasn't satisfied. He insisted they should know the reason for the change. Something was wrong and he wanted to find what

it was. The other men were only interested in the effect on their commerce.

He kept doggedly at the task, working under terrific difficulties, and slowly a theory took form in his mind. For years he kept it secret, while carrying on the work the board of directors requested.

Nine years from the time the first variation appeared, the planets seemed to go on a spree. Mars moved many million miles from its former position. Ships from there turned in reports of unheard of distance, covered on a trip. The society could no longer overlook the change.

Large amounts were appropriated for research, but the scientists were at a great disadvantage. They were trying to cover work that should have been started years before. Bogelman was the only man who seemed to know where to begin. His ground work, carried on secretly for years, gave him an enormous advantage.

For months he labored at his figures, and one thing became certain: Space travel should be stopped until they knew what the trouble was. He knew it connected in some way, but the exact connection was beyond his grasp.

When he suggested curtailing space commerce, at one of the board meetings, they laughed at him. Why? He was suggesting that they stop their income!

When he brought up the subject at a later meeting, and was more insistent, they became antagonistic. Men he had considered his friends went against him, and with one accord they turned the suggestion down.

When he tried a third time, he met silence. But he went on with the explanation of the planets' action, and they had to listen. His theory that space commerce was responsible for the change in the universe wasn't given a second thought. It would upset the entire transport system.

Three days from the time he told the society they were to blame for the action of the planets, he was voted out of the organization. They couldn't have a man with such radical ideas in their group.

So Professor Bogelman was dismissed—after thirty years. He was the oldest member, in years of service, and drew the highest salary, but they had to do away with him. If his theory leaked out it might mean trouble that would reach alarming proportions.

Freight ships were leaving the main ports several times a day. The world's industry depended on the movement of material from other planets. Very little of the cruder earth metal was in use. The majority of raw material was transported from other worlds. Machinery from civilizations long dead had been copied and reproduced on the Earth, with the same base metal used in the original manufacture.

At first it was impossible to transport any but the most valuable material, but as space ships improved, they could carry heavier loads.

Finally, reaching the place that ocean commerce held centuries before, ships of thousands of tons' capacity dropped into port, with every conceivable load. The amount of crude ore transported was beyond comprehension, while the quantity of other material was not far behind.

The main ports were capable of handling several ships at a time. Electric cars alid to a stop beside the enormous hulls, to have gangs of workmen swarm over them. It was a thrilling sight, and one that people who were visiting a space city never missed.

Watching the huge ships settle down to the berth at night, with thousands of candle power lighting up the scene, was a never-to-be-forgotten sight. People who had watched all their lives turned to look.

Sight of the new fleet of ships with

their supercapacity, was awe-inspiring. The scientific society had built thirty of the huge liners, with a length of over nine hundred feet. Their diameter was over three hundred and allowed room for enormous quantities of material, although the operating machinery occupied more than half the hull.

The society was justly proud of their new ships. It required years to reach the position where they could build such mammoth machines. One of them would have bankrupted a small government, and taxed a large one to the utmost. They were the greatest display of commercial power that had ever been seen—and were built by the independent society.

From the time of the giant ships' completion, no country thought of questioning the might of the space company. It became law in every land. Government came to them before planning development. If the society said no—they stopped. If they were told to go ahead, they did so with full confidence they could carry any project to completion. The space company was virtual ruler of the world.

Conditions would have been considered very strange to former generations, but nothing seemed unusual to people who had grown up under the changing order.

WHEN Professor Bogelman was dismissed from the society, it wasn't just lost of position which counted. He had been a member of the greatest possible body of authority. It was like a king being sentenced to exile, his country taken away.

It was the middle of June when he was dismissed. He would have left for a month's vacation on the first of July. The small mountain resort where he had spent every summer for many years, would be expecting him.

This thought occupied his mind as he walked toward his apartment. It would

be terrible to disappoint Mrs. Cochran, who ran the house. Every vacationist was important to her budget. Professor Bogelman appreciated the fact after several years, and knew what a small margin she operated on.

The new ground cars caught his eye as he walked along, and he turned his steps toward a showroom. He would have time to enjoy one now. His time had always been taken up with weighty problems before, leaving little time for pleasure.

An hour later he didn't feel quite so low. He owned one of the new, fast racers, considered the last word in automobiles. True it cost a small fortune, but he could afford to spend money as he pleased for a while.

For many years he had saved half his income. His father left him quite a large amount, which had never been touched. The society would have been very much surprised to know he was worth over a million dollars.

Most of his time was spent learning to drive the new car. It was simple, but he wanted to give the impression of long use before meeting people he knew. A week after he left the society he started for the resort. There would be room early in the season.

His arrival a week ahead of schedule was a surprise to the guests, but nothing compared to the landlady's. Always a quiet and unassuming person, he cut quite a figure in the new sport clothes, and the car drew attention. Such a machine had never come to this resort before.

From the compartment in back he brought forth everything from tennis rackets to golf clubs. Even Mrs. Cochran came forth to see the display of wealth which had approached her door.

Professor Bogelman found two of the girls hanging on his arms and listening to everything he said, as if their lives depended on it. It took a long time for

him to understand the sudden popularity, but the truth finally dawned. So he asked them to go for a ride. They disappeared to dress before the last word was out of his mouth.

Fifteen minutes later they weren't so sure about wanting to ride. They were traveling over the dirt roads at a speed that made them hold their breath, and were thankful when he stopped in front of the door again. In twenty-five minutes they had covered twenty miles of the worst country roads.

Later, Miss Larimore, a pretty blonde, took him in hand to teach him tennis. Before her vacation was over he had a fair understanding of golf, tennis, horseback riding, and swimming. She drove the car wherever they went, and looked forward to some of the best shows the following winter.

While Professor Bogelman was enjoying his vacation, the society was searching frantically for some other explanation to the action of the planets. The orbits were showing increasing variations, and the society was experiencing progressively worse trouble with space navigation. The organization was built around space commerce to such an extent that even a short stop of income would bother them seriously.

The smaller planets were the first to show variation; but the Earth finally joined the others in acting up. During the summer the Earth was farther than usual from the Sun, and as the weather turned cooler it did not draw closer. Frost affected crops in sections where it had never been known during the growing season. The public began to worry about conditions which had only created interest before.

The society was deluged with questions. At first they were haughty, but the temper of public feeling reached the point where they had to give some answer. Conference after conference was held by the ruling board, but no proper answer could be found. They had to

put off explaining until they knew more about the cause.

Men were assigned to watch each planet from stations all over the Earth. The outposts on Venus were instructed to report their action. They hoped the figures from these two planets would solve the puzzle. Their action was very similar and their general position and size the same. They were compiling all the information they could obtain.

Mars was acting up more than either one, and it became an adventure to land a space ship at that station. If the antics increased it would be impossible to land a ship, and some of the most important raw material came from there.

The society was greatly worried about the effect on commerce. Every piece of data they obtained was used to remap rocket trails. They must hold commerce to normal, or industry would replace imported products with Earth resources. It had been generations since the cruder metals were used for manufacture.

PROFESSOR BOGELMAN returned at the end of summer. He had a hearty coat of tan for the first time in his life. His golf clubs showed signs of heavy use, and his tennis rackets needed restringing.

The man himself had been through a transformation. Instead of the weak-appearing, scholarly gentleman, he looked hale and hearty. He seemed to have dropped fifteen years from his life and appeared as a man of fifty-six should, instead of as an old man.

The car no longer looked new, but showed signs of hard usage. Dust clung to it in every spot. It hadn't been washed since it came from the showroom. The man had changed completely. Everything in his former life was methodical and shining, now little things didn't matter. He found the car ran as well without cleaning as it did polished to the limit.



When he stepped from the car in front of the apartment house and slapped the janitor on the back—the man nearly swallowed a new set of teeth, as much from surprise as from the slap. He was still swallowing hard and trying to understand the strange action when Bogelman entered the front door.

A moment later he was still more surprised to hear the professor bellow at him from an upper window and want to know why his apartment wasn't clean and in condition to use. He was so dumfounded he couldn't move for a mo-

"The world has reached the utmost that it can stand!" And then, suddenly—

ment. But another bellow, that could be heard down the block and brought heads from the windows, sent him hurrying to explain.

When he arrived with all the equipment to clean with, the professor had forgotten he existed. A stack of mail caught his interest, and he was busy going through it.

One letter held his attention and he turned it over several times before tearing it open. The huge seal of the society was on the back. Before reading it he ordered the janitor out of the room, much to the fellow's amazement.

"Get out with your mops! Come back and clean up when I'm not here. I don't want to be bothered with the noise now. Don't forget to get back here the first time you see me go out the front door, either!"

For several minutes the man stood in the hall outside, wiping his forehead with a dust rag, until he discovered what he was using. Something was radically wrong! The professor—the man who had always said please, as if he wanted a favor. It was unbelievable; but he was certainly going to watch and see when he went out and get the place cleaned up. He had forgotten one of the mops, but didn't dare go back to ask for it.

YEAR AFTER YEAR while the professor was away he hadn't bothered to clean his apartment, and it always resulted in a timid request that he do it when he got time. But now—he felt of his teeth to make sure they were where they belonged—the man might knock him downstairs. Then he happened to think—he must ask the janitor next door what he thought of it.

Professor Bogelman slowly opened the letter and read the first line; then he sat up and went over the contents:

We are sorry that your action caused us to dismiss you without notice. You have a long record of service to your credit, and the board has decided to make you an offer which should appeal to you.

If you will return to our ranks we can offer you the position of Professor Mann's assistant, who was killed recently. Of course it will only pay the salary he was receiving. This is much smaller than you formerly received, but we feel it is all we can offer.

Suddenly the neighbors thought a riot had started in Apartment 36. Several heads came out of doorways to see what the trouble was, but it soon subsided.

The noise caught the janitor just before he got out of sight of the door, and he was afraid it meant something personal. He broke all speed records to get away—leaving a string of mops, brooms, and dust rags along the trail.

The professor was mad—mad clear through. The chair he had been sitting in was upside down on the opposite side of the room, and a vase that had stood undisturbed for years on a small stand was scattered over the room in pieces.

Suddenly the realization that he would not have been mad, but would have been gratified with the offer a few months before, seeped into his mind. He sat down with a thump. Somehow he had changed. For months he had done what he wanted, too, dictated his own actions. Instead of the easy-going professor, he was a man with ideas of his own, and he could carry them out.

He had wondered what he could do with his time when he returned to the city. He wasn't satisfied to spend his life in pleasure. He wanted work to do, and now that he was offered some he was insulted!

Suddenly he laughed. It was comical. He, the great Professor Bogelman, offered a place as assistant to one of the minor scientists—with a salary of about one fourth his former one. Suddenly he knew! He was the great Bogelman! The worst mistake the society had ever made to dismiss him.

For several minutes he sat thinking, as the germ of an idea took form. The letter had been the last touch. He'd show the space company whether he was a back number! They'd regret many times that his name wasn't on their list!

For years he'd tried to make them see some of the theories he had evolved, but they'd never listen. Now he would

make them hear about them! He'd create more news in the papers in a day than they handed out in months!

Bogelman was a wealthy man, wealthier than he expected until he checked with his attorneys. He commanded a small fortune, sufficient for all he wanted.

For three weeks he worked steadily. Vague ideas he had discarded because they weren't received by the society with favor came from the back of his brain. He tried experiments, took chances on the results for the first time in his life.

A month from the day he reentered his apartment, he bought a plot of land well out of the city. A week later materials began to arrive. He was building a laboratory!

Reporters soon dug up the facts, and his name spread over the front page of every newspaper. Money had done more for his reputation in a moment, than his years of effort with the society. For the first time in centuries there was a private laboratory being built. All experimental work had been controlled by the society.

He was the great Bogelman! Columns were filled with conjecture about what he planned to do in the new place. He fed them carefully, dropping hints, as if by accident, about his plan. Then he would hesitate, as if he had said too much. The papers ate up every word.

When the plant was completed he closed it to every one except his own employees. There were a dozen skilled workmen who kept their lips sealed tight, and the papers waited expectantly for any sign of what was taking place inside the walls.

SIX MONTHS from the time he opened the door of the new laboratory, he called the newspapermen to his office.

"Gentlemen, I have waited a long time for this moment. As you know, I was the oldest member of the directing board of the society a year ago.

But they decided I wasn't working along the lines they wanted, and they fired me! Yes! I was voted out of the society by the group of men who entered long after I did.

"For years we were at odds as to what line of research to follow, and I was restricted to the course they set. Now I have gone ahead on my own plans, and want to show you the result.

"I have built a space ship! There is not one single principle involved which they use, yet I dare them to try and equal it in action! I can outdistance any of their great ships, carry a greater load, and maneuver with much greater ease. Its cost is a small fraction of their cheapest product.

"They have to use the nearer planets to refuel on a long trip. Yet my space ship will travel to the farthest space port and return without extra fuel. Instead of half the available space taken up by machinery, my driving mechanism only takes up one fifth, and the space occupied includes cabins for the crew.

"If you gentlemen will print my challenge to the society, I will greatly appreciate it. But that is not the sole reason I built the ship. I want it for scientific research work. But I dare the society to put one of their ships up against it."

The reporters broke all records to get the news in print. They had waited months for some word of what he was doing, and now they had the greatest story in years. He was actually calling the society a bunch of dumb-bells. Such a thing was unheard of; but he was in a position to do it.

Before the society was aware of what was happening, the challenge was spread over every paper in the world, and they were helpless to stop it. They knew he was sure of himself, or he wouldn't have made the statement, and they didn't dare question his word.

His revenge was sweet. They had to admit it. They even sent a committee to see him, asking him to rejoin them

in his former capacity. They offered an unheard of amount for the laboratory and ship.

Bogelman let them sit in the office for an hour before he came in. Then he enjoyed their discomfort when he flatly refused to have anything more to do with them—and inquired if they had discovered the reason for the planets' peculiar action.

As soon as the *Silver Arrow* was tested and in condition for a trip, he took off for Mars. Every available instrument that could be used for calculating was installed. He headed out on the mission which might have saved the universe a few years before.

Bogelman was certain he knew the cause of the strange action of the planets. If the society had allowed him to carry on his present experiment when peculiar action was first registered, he might have found the answer ten years before.

THE EARTH was beginning to show the effect of moving from the old orbit. The summer following the cool season was much warmer than usual. The world had moved much nearer the Sun than it formerly was. Crops matured all right, and the public didn't worry much about the condition.

Then freak storms struck—storms that wiped out communities, with a force far greater than anything before experienced. Winds of unheard of velocity seemed to rise without warning and sweep for miles, leaving nothing but desolation in their wake.

Upper-atmosphere storms were so severe that space ships had a hard time passing through, and several of them came into port damaged.

It became increasingly hard to land on Mars, and spare men shunned the ships destined for there. One ship was smashed so badly another had to pick up the crew and return them to Earth.

The world seemed to head out into

space at terrific speed, and cold weather followed in the wake of the very warm summer. The Southern Hemisphere had a cold summer and was unable to mature any but the shortest-season crops.

Storms increased until they menaced every part of the world. No country was immune; there could be no sympathy for a neighbor. One day a town would be standing—the next day it was wiped out. Very seldom any life remained. They were hit with too much force.

Tidal waves wiped out coastal cities, to never be rebuilt. The world was passing through the greatest time of catastrophe it had ever known. People walked around with fear in their faces. They might be the next ones to go; their section might be hit at any moment.

The society was deluged with questions about the trouble, and could only ask people to wait patiently. The trouble couldn't last. It was just a freak upset of balance and would soon straighten out.

They were afraid of the assurance they handed out, and worked frantically to solve the problem. Space travel was cut down to the lowest level in many generations. Industry was at a standstill. They were helpless without interplanetary commerce.

Trouble on Earth took up the public mind enough so that they didn't bother about the universe a great deal. People everywhere suffered from want and the ravages of the elements.

As time passed the sections left untouched grew fewer. Civilization neared the breaking point. Stored supplies were giving out, and there wasn't sufficient supply of food being raised to meet the demand.

Heat was hard to obtain. Fuel was lacking for the added cold weather. The warmer sections started growing cold-climate crops. There was no longer any torrid zone. It wasn't too hot for com-

fort at the equator, in the middle of summer.

The population began to move South to obtain the natural warmth. But the warm climate was offset by harder storms.

Professor Bogelman had completed his measurements and returned to the Earth with very little fuss. People were so occupied with their own troubles they weren't interested in what he was doing.

His greatest fear had proved correct! The life of the world was set. It wouldn't be many years before it was beyond the point of habitation for human life.

Movement of heavy material from other planets had gradually shifted weight enough to throw them out of balance. The material used on the Earth had so increased its weight as to eliminate any chance of its weathering the change.

At first the change of weight had taken little effect, but as time passed the variation increased. Once the exact balance shifted, it slowly increased, and multiplied as the change took place.

Men were stranded in space cities on other planets, and could not be brought home. It was impossible to get a space ship through the terrific storms surrounding any planet with atmosphere.

If Professor Bogelman hadn't had a super ship, he could never have returned to Earth. Even his ship was wrecked beyond repair.

He intended to inform the public that the world had only a short time to survive, but changed his mind when he saw their pitiful plight.

They still nourished hope that the trouble would subside. There was no reason for wrecking their slim hope. It would spoil what enjoyment they might have until the end.

The world seemed to stop its mad antics for a while. Two years slipped

by with only slightly cooler seasons than usual. Hope soared high, and people went to work to rebuild the torn civilization.

FOR A WHILE Bogelman thought he might be mistaken; but he knew there could be no hope. Weight running into unthinkable amounts had been shifted, there could be only one result. The planets were thrown out of balance, and where they would stop in space would be a question.

The public was happy. They went to work with a will to grow crops and rebuild torn-down homes. If only the storm stopped, they could stand anything else.

Professor Bogelman returned to his old vacation spot. Many of his former acquaintances had managed to get back for their vacations as well. It was three years since they had met, and they took full advantage of the chance to play.

Bogelman spent considerable time checking over his figures, trying to find reason for the seeming change in the action of the world. According to his figures, the world could not exist after September 8th.

They had passed through almost two years of peace and quiet, yet the world should be going through the worst throes of its existence. Then he discovered a reason. It might be the answer, or it might not.

The Earth, with its added weight, had moved a little farther into space and received less heat from the Sun; but the other planets, with their lowered weight, had not changed in proportion. They were moving at terrific speed. But until they reached the overbalancing point, the Earth would be held fairly steady.

The space company succeeded in sending out some ships, but they had been unable to land. Two out of five never came back, and the others limped into

port. Space travel was abandoned for the present and Earth materials were used for all building.

Toward the end of summer the weather began to cool off faster than it should. Crops were harvested in a hurry to save them from frost. The world started to move out into space again. The heat from the Sun was growing less all the time.

The daylight varied. The world was not even turning on its axis in the proper time. People grew panicky; but the storms seemed to hold off.

Bogelman knew his figures were correct. The world was speeding up to reach the position it must hold in the early fall.

He sent a long communication to the society, stating exactly what he found to be the cause of the planet's action. He also told the time he expected Earth to reach the point where life could no longer exist.

When the society received his letter they paid no attention to it. But when Earth followed the exact action he said it would go through, they began to fear that he was right. Even then they wouldn't take the explanation seriously or admit that he was right.

THE MORNING of September 8th dawned on an unhappy world. For three days the ground had been shaking almost steadily. Dishes rattled from tables, and pictures fell from the walls. People hesitated as if expecting something momentous to happen any moment. The feeling that things were coming to a climax gripped people who had scoffed at permanent trouble.

Professor Bogelman had done all the figuring possible and taken his golf clubs for a round before the end. There was nothing that could be done about it,

and he wanted to pass the time away. The only man who really understood what was happening, could enjoy a pastime. If others had realized what was ahead they would have been half out of their mind.

As the professor was playing the ninth hole he glanced up to see three of the foremost men in the society coming across the green toward him. A frown crossed his brow at the interruption. There was nothing to say to them that would help any, and he was enjoying his game.

They stared at him in consternation as he finished, "And I expect the end will come in less than ten minutes. The world has reached the utmost it can stand."

Suddenly the Earth tremors increased, and, with one accord, the men started on the run back toward their car.

The Earth split from the snow-capped mountains of northernmost America to the Gulf of Mexico, with a crack that could be heard many million miles out in space. Molten rock flowed out from the interior, to create steam of the oceans.

The surface of the once serene globe was scarred and checked with huge seams, with steam bellowing away in huge clouds. Nothing was left standing. The surface shifted several hundred feet in some sections to miles in others. Life was snuffed out. Not a living creature was alive five minutes after the Earthquakes.

As the end came, Professor Bogelman was watching the three very eminent men sprint toward their car, in the most undignified act in their very dignified lives.

It was a funny sight, and he met the end doubled up with laughter.



EXCELLENT!

A Study of the Solar System

Article No. 4 by John W. Campbell, Jr.



The Veiled Planet

A GLOBE of shining silver, pure and spotless, brightest object in all the heavens, save for the Sun and Moon, the planet longest known, perhaps, certainly the second, at worst—Venus, the planet about which we know less than of any other of the solar system, with the single exception of

Pluto, last discovered, and most distant of the Sun's children.

Venus has been known ten thousand years—has been known to be different from the stars for all recorded time. Fifteen hundred years before Europeans accepted the planetary theory that made the Earth and the other planets circle the Sun, the Mayans of Central America had observed and computed the orbit of Venus in many ways.

Yet we know more about Neptune,

undiscovered till telescopes reached large dimensions—so dim and distant as to be invisible in small telescopes. We know Neptune's mass with great accuracy. We know the length of Neptune's day.

We know the mass of Venus only to a fair approximation. We can say of its day only that it is more than twenty, certainly, and less than fifty, probably around thirty days.

Venus is the nearest of the major planets. Mars has always been the center of interest with regard to speculation on possible inhabitation. Yet, in many ways, Venus should be considered before Mars.

The answer is easy. We can see enough of Mars, know enough about it to make intelligent speculations. Venus is the unknown, the most mysterious of the planets.

FIRST, of the planets that might bear life. To consider the possibilities of life on Venus, we must first lay down some basic foundation of data on life—and on Venus. We can get the life data—data that will be all-embracing enough to be remembered in the discussions on all the planets—later on.

We can delineate limits. First: We use the term "life as we know it" rather too loosely. It is senseless to expect all life to consist of rabbits and elephants, human beings and goldfish. Life as we know it must mean something broader than life in the forms we know. By sufficient use of the imagination, we can conceive of life built up of pure forces. Life is a complex thing, recognizable by its ability to use obscure natural law to overcome evident laws of nature.

An unsupported body heavier than the surrounding medium will fall. That is an evident law of nature. But unsupported birds don't drop; they fly, by calling on the obscure laws of chemistry for power, the hidden mechanisms of

nervous energy for control, and the laws of kinetic gas flow for support. Life must obey natural law, but it can amplify and bend to its needs less-common laws.

It must be complex. If it consists of pure force, those forces are so far beyond our imagining—certainly our knowledge—as to make it useless to speculate on them.

Life as we know it is chemical. It is a chemical reaction continually maintained in a state of unbalance while it is life; death is the balance finally attained by that reaction. We do not know the full processes of life in chemical form, but we know a good many fundamental rules.

First: Any complex chemistry, any delicate sensitivity of nervous tissues, must take place in solution. Drying is inevitably and invariably fatal to any known form of life. Certain spores, in view of this, protect themselves against drying by means of waxy or otherwise resistant husks; but if they are actually dried, they die.

Second: There must be available a supply of chemical energy. Conceivably, a planet might have native masses of iron and quantities of water. Low forms of life could exist on this chemical energy—the rusting of iron—without the benefit of an active, gaseous atmosphere. But, inasmuch as chemical energy tends to escape, there usually are no solid or liquid chemicals available. Further, that requires a concentration of life in those spots. Then, generally speaking, life depends on an atmosphere of an active gas. An atmosphere one thousand miles deep consisting of helium, argon and nitrogen would be practically useless, since none of these gases is active enough to support life. There must be atmosphere, and an active atmosphere.

Third: There must be sufficient, but not too much, warmth. That range is wider than we normally think—because pressure of the active atmosphere makes

a great difference, and because liquids other than water may form the solution.

What liquids are possible? The liquid must be active—active as the gaseous atmosphere. Benzene is a liquid at quite low temperatures, but is not a good medium for life, probably an impossible one. At even lower temperature ethane gas becomes and remains a liquid, but is not suitable because it is inactive.

Water we normally think of as inactive. That is a serious error. It seems inactive only because it has already attacked viciously every substance it can reach, and reacted with it. Sulphuric acid is really less active than water; in some respects. Sulphuric acid forms a salt with calcium CaSO_4 and can no longer react with it. Water starts in when sulphuric acid is exhausted, and attacks the compound to form $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$.

There are millions of tons of that compound, and we say water is inactive because we came along too late to see it at work. Put a little water on CaO —quicklime—and watch the distinctly violent action. Water attacks viciously sodium, potassium and calcium metals, which we keep in the inactive liquids like benzene and gasoline. Iron certainly has short shrift with water present.

Because of that voracious and catholic activity, water will dissolve to some extent practically every known substance. Animals and plants found a wonderful medium for their life processes, used it, and through evolution discovered ways to prevent the solution of their needed tissues.

The second-best solvent in the world, or universe, is ammonia—not ammonia water, but the liquid ammonia used in refrigerating plants. Ammonia— NH_3 —is also an active substance, forming complex compounds similar to water's hydrated calcium sulphate. Our own

types of life can't exist in ammonia, but there is no reason to believe other types couldn't. Unfortunately, ammonia is unstable, with the result that here on Earth we spend millions synthesizing it from nitrogen and hydrogen as fertilizer for plants that can't live in it, and can't live without it.

Sulphur dioxide— SO_2 —is another possibility, an active liquid under slightly different conditions, a bit more pressure and a bit lower temperature. It also could be a basis for life.

NOW, so far as gases go, we can name a few, but whereas the possible liquids are by no means exhausted with those three—though they are the most important possibilities—the gases are more limited. Under the conditions of Earth, so far as temperature and pressure go, there are only three that can be considered: oxygen, of course; fluorine; and chlorine. All three of these are active gases at our temperatures, entering readily into the compounds used by life forms. Fluorine is the most active, and would be a possibility under lower temperature and lower pressure, for while the activity of any chemical declines with the temperature, the activity of a gas declines also with the pressure, since pressure represents concentration in gases.

The possible substances, under any conditions, are fluorine, oxygen, chlorine, bromine, hydrogen and iodine. That is the order of declining activity. To make them equally possible, the temperature must be increased. Thus, fluorine would be active enough to support life at our pressure and a temperature of -80° or so; oxygen at -20° ; chlorine at -10° ; bromine at 70° above zero, and iodine at a temperature of at least 200° above zero.

You noticed the omission of hydrogen? Temperature is not as important to hydrogen as is pressure. Immense pressure can be applied to hydrogen and

the activity of hydrogen increases rapidly under that influence. For instance, nitrogen and hydrogen—which can combine to ammonia—break down to hydrogen and nitrogen normally. But the Haber process of making ammonia simply mixes the two gases under great pressure—and they combine quite actively, heat, as usual, being applied to speed the reaction.

But, while fluorine and chlorine cannot stand much greater pressure than Earth's atmosphere at any low temperature, because of liquefaction, oxygen and hydrogen can be compressed terrifically at very low temperatures, and hydrogen withstands any conceivable pressure without liquefaction at any temperature above the critical temperature which is far, far below zero centigrade—230° below. But pressure applied to either bromine or iodine immediately restores it to liquid, which naturally removes it from the atmosphere. Incidentally, there are compounds, HF, HCl, and HBr—the hydrogen compounds of each of those gases that are liquid under sufficient pressure, and are some of the other possible liquids of life.

Any life-bearing planet must have carbon. All chemistry, unlike Gaul, is divided into two parts: inorganic chemistry, dealing with ninety-one of the ninety-two elements; and organic chemistry, dealing with the other one—carbon. And there are more organic compounds than in all inorganic chemistry. No complex chemistry could exist without carbon, because carbon can tie onto carbon atoms in a way other elements cannot. One other element weakly imitates carbon in this—silicon, a first cousin of the carbon atom—but too weakly to replace carbon.

We've laid down a basis now. One more thing, and we can rule out many a planet: temperature. If the temperature is too high, as in the Sun itself, compounds cannot form. There can be no life there. If the temperature is too

low, chemical reactions are slowed to paralysis; they cannot take place. Sodium, virulently active at our temperature, becomes so inactive that it can be kept indefinitely in a water container—ice then—on a planet near absolute zero, as is Pluto, and yet well above the temperature of liquid hydrogen. If even that prodigiously active substance is paralyzed, what chance have life's delicate activities.

Right now we can eliminate Pluto from consideration as a life-bearer of any chemical type; the temperature is too low. Mercury we eliminate because it is too hot for complex, delicate organic substances.

VENUS has a warm—but not too warm—temperature. It apparently has a deep atmosphere. It is about the size of Earth—so nearly so that they are almost twins. Gravity on Venus is 85% of that on Earth. But—the vast clouds obscure the secrets, clouds that roll continuously, unbroken, through all astronomical history. By their very secrecy they tell us some things—though no man has ever seen the true surface of the "Veiled Planet."

There must be water; it is difficult to imagine that any substance other than water could form those clouds, though our spectroscopic tests show no water vapor. Still, they may be clouds of ice particles, with so little vapor present as to be unobservable.

Further, we can make our tests only on the thinnest, outermost layers of the atmosphere, above the clouds, since we cannot see beneath them. The measured depth of visible atmosphere above the clouds is considerably less than one mile, so our tests are not delicate. There is not material enough there to affect the spectroscopic very heavily. We can, however, find no oxygen, no water vapor.

By direct observation we see only mirroring clouds, white and reflective, as

characterless as a mirror. But that is not all. The deepest probe man has is not light, but gravitation, that passes unhindered through all things. We can—as I will tell later—learn more about the internal structure of Saturn than we can about Earth itself! Nine moons of varying size circle Saturn, each influenced and utterly bound by Saturn's mass. The character of that binding and the way they move, tells us a great deal about the structure of Saturn far below the cloud layer that covers the planet.

But Venus has no moon, no revealing satellite. All the information we can get of Venus is size, shape, distance from the Sun and, of course, a measure of its reflecting power. That is important—that albedo, or mirror power; for, while Venus, being three quarters as far from the Sun as Earth, receives, due to the inverse-square law of radiation, twice as much heat from the Sun, the mirroring clouds send a lot of it right back where it came from—space.

But we can calculate the temperature of Venus—from this data—fairly easily. It's high, very high for a planet. On the equator the seas are boiling, slowly throwing out great bubbles of steam. Only the very poles of the planet are remotely livable, hotter even there than Earth's equatorial regions.

Far below the cloud layer lies Venus'

rocky surface—hot, mist-wrapped, and whipped by eternally driving winds that blow only endless, world-wrapping mists. The spectroscope shows us no rotation of Venus, and if the planet revolved even one twentieth as swiftly as Earth, it would tell us. If Venus rotated one thirtieth as rapidly as Earth the equator would bulge slightly under centrifugal force. But neither effect is seen. Venus is a blank, secretive, cloud-wrapped world.

If we went by these indications alone, we might guess Venus had an eternal day. But if this were true, the side facing forever into space would be as cold as space, and there could be no clouds, only vast glaciers of fallen snow. So Venus does turn. But calculation shows only that it must turn more than once in fifty days. Astronomers conclude it probably has a day equal to thirty of ours.

But we don't know. Silvery, mirrored, wonderfully brilliant, our nearest neighbor shines in the morning or evening sky, never more than 46° from the Sun. Silvery, mirrored, unknown, our nearest neighbor is the greatest mystery of the system. Inhabited? We don't know; can't say. We can only guess, and estimate that it is probably not. We know more, in some ways, of Pluto than of Venus, and no telescope can ever tell us much of Venus.

COMING NEXT MONTH:

The Double World

EXCELLENT!

The by MURRAY LEINSTER Incredible Invasion

*Continuing the serial of the
earth and its dimensional secrets*

UP TO NOW: Professor Blair, while in the midst of his work on Straussman's theory—showing that two objects can exist in the same place at the same time—suddenly and mysteriously disappears.

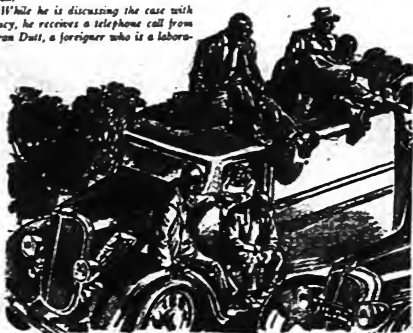
Steve Waldron, a biologist, who is in love with Blair's daughter, Lucy, tries to find the missing professor—but to no avail.

While he is discussing the case with Lucy, he receives a telephone call from Fran Dutt, a foreigner who is a labora-

tory assistant to Professor Blair, and who is also in love with Lucy.

Told by Dutt to follow instructions—regardless of what they see—if they wish to find the professor, Steve and Lucy start for New York.

They witness accident after accident, until it seems that all within sight are



There were bitter curses, grindings, scrapings— Each car
was loaded beyond capacity—

*Part
Two*



*A black, crawling mass—humanity in flight from
the terror of stillness!*

dead. Human beings freeze in their tracks as if paralyzed. Steve and Lucy, alone, go on their way unharmed.

They arrive at the hotel in New York just before radio flashes announce the disasters they have already witnessed.

Newark is a dead city, cut off entirely from the rest of the world! The newspapers report: "Plague wipes out city!"

Steve, however, knows differently, though no one will listen to his theories. Finally he enlists the aid of a reporter, Nick Bannerman, and together they set out for the stricken city.

Nick secures pictures of the area, by means of kites; Steve, in the same way, secures white-mice specimens stricken with the so-called "plague."

On their return to New York, Steve goes to the biological laboratory at Columbia to examine his warlike specimens. He is met by a foreigner who looks very much like Fran Dutt, and finds himself covered by a gun. Striking swiftly, he knocks his foe out and telephones Nick, requesting aid.

Steve dashes back to the hotel in search of Lucy.

When they realize that every place they have visited has become a stricken area, they are accused of being plague carriers. Secretly, they set out for White Plains, in quest of a sufficiently equipped laboratory for Steve to carry on his experiments.

They are discovered, however, by the persons Steve believes to be responsible for the disaster, and White Plains becomes another stricken city, but not before Steve discovers that by means of high-frequency electricity he can bring the hard, corpse-like mice back to life.

V.

THERE WAS one last smashing sound. After it came the clattering tinkle of broken plate glass. One last moving car, probably upon a side street, had been traveling

slowly, and its course had been accurately laid. It had rolled onward for minutes, before something caused it to swerve. Then it deliberately climbed a sidewalk, and as deliberately pushed its radiator through a shop front.

Then there was utter stillness, save for the men who came in quest of Steve and Lucy. Aside from the slurring cadence of their footsteps, there was no noise anywhere. White Plains was a dead city, occupied by toppled figures who looked vastly more like discarded waxworks than human beings. Human beings commonly relax when struck unconscious; they fall limply. But these figures lay, or leaned, or stood absurdly upright and motionless in exactly the poses they had held at the instant they were stricken with rigidity.

A man lay at the foot of a flight of steps which he had been mounting. He lay flat on his back, one hand in his pocket where he had fumbled for a key. And one foot was upraised for the step he had been about to take.

A woman lay forward on her face, frozen in the act of applying lip stick. A fat man lay helplessly, his lips pursed and his expression intent, stiffened into immobility as he painfully tied his shoe, and retaining that same position and that same expression, though he had fallen over and rolled downhill for a matter of yards.

And Steve stood upright, the third high-frequency generator he had improvised clasped all unconsciously in his hands, sick with fury and listening to the approaching footsteps of men who warred upon America and sought him out because he was dangerous to their cause.

Lucy was stiff, frozen in the catalepsy which held not less than six hundred thousand people in its grip, now. The doctor was frozen. All the town was occupied only by stiffened, motionless human beings, unable to move a muscle and—it was to be hoped—unconscious.

But men came, speaking an unintelligible language—

Veins stood out on Steve's forehead. But he fought back his rage. He looked down at the high-frequency generator in his hands. In its interior, a tiny tongue of metal wavered back and forth and a tiny blue spark flickered. Because of that spark and the high-frequency currents it generated, Steve himself was still alive. And there were the other outfits—

He threw the switch to the X-ray transformer. He took in his hands the wire leads which had revived the mice. He moved swiftly while the spark gap rasped. Holding one lead fast, he touched the other to the doctor's hand, and moved back his fingers so that the current flowed through the body of the doctor.

The doctor stirred.

"Quiet!" said Steve in a low tone. "You've had a dose of what they call the plague. Now you're out of it. But keep quiet and listen! While I keep this high-frequency flowing through your body and mine, too, take this high-frequency pack. Quick!"

THE DOCTOR stared at Lucy.

Then he listened.

"Yes," said Steve bitterly. "The town's dead! Quick!"

The doctor moved like a man accustomed to emergencies. Steve drew back. The doctor still moved.

"Good!" said Steve grimly. "You're safe! Lift Lucy over here. The wires won't reach to her."

The doctor moved like a man who confronts the daily emergencies of a general practitioner in days of automobile smash-ups, learns to act without argument. He lifted Lucy to within Steve's reach, to the current. She shuddered, stared, and paled.

"Yes," said Steve, "they've frozen the town. Take that battery generator, Lucy. Quick! Give me the third."

He felt its comforting grasp. There was no sensation at all from the current, though. He snapped off the big transformer. The sound of nearing footsteps was plainly audible, and Steve nodded more grimly than to the doctor, when Lucy looked at him, frightened.

"Fran Dett's compatriots," he told her. "We've got to get out of this! And we've got to do it quietly! We can't fight! Doctor, it's up to you to lead us out of here without a sound!"

Again, without a word, the doctor led the way, to a side door of the office, a dark hallway, steps leading down. Steve steadied Lucy, cautioning her under his breath. The doctor opened a door with infinite caution. They were out in the cool fragrance of the night. Behind them, feet tramped up a flight of steps, going to the office they had left.

"They stay or may not figure out we escaped being frozen and are running away," whispered Steve. "But we've got to get as far away as possible as quickly as we can."

They reached the street. They moved away from the center of town, heading for a curving, tree-lined avenue which reached nearly into the business section of the city.

Behind them they heard voices, an argument. Somebody clumped heavily downstairs again. The trio moved faster.

But, despite their haste and despite the formless but very real danger from those who walked about unconcernedly in this city of silence, they could not but feel the gruesomeness and the horror that lay all about.

The street lights still glowed brightly. Lights in the houses still burned. But no living creature moved anywhere, save the men who had caused this immobility. The three could see into a lighted room, and could see a family seated there. Every one was motionless. It was somehow shocking.

They passed a car, parked before a house. A young man and a girl sat in

that car. The motor idled softly. The girl had just gotten in beside her sweetheart. He had snatched a furtive, quick, and eager kiss—and had frozen in the act of it.

And a long, long way on it seemed—when they felt almost safe—they saw a woman sitting on the steps of one of the meaner houses. She held a tiny, carefully wrapped bundle in her arms, and she bent over it. The bundle was a baby. The three of them looked, and went quickly on. That woman would sit there in that pose of all-unconscious tenderness, through the night, and through the day, and through perhaps many nights and days—

Steve said harshly, a little later: "We want a car. No use being squeamish. You, doctor, have to get in to New York. They've got people in the hospitals on whom they don't dare conduct autopsies and whom they don't dare bury. They think they're dead. You go there and revive them. Take care these devils' spy system doesn't forestall you! And when you've revived a few, maybe some of the fat-heads who talk about a plague will believe you!"

The doctor said: "Here is a car."

He stopped beside a roadster of a cheap make. Its parking lights burned. He opened the door and peered in.

"The key's in the lock. It should run."

He took the driver's seat, turned the key and stepped on the starter. The engine caught. He reached for the light lever. Steve stopped him.

"No lights!" said Steve grimly. "We're still in the dead spot. If Fran's compatriots know too much they may come after us. We'll ride with you for a way. Try to be as quiet as you can."

He thrust Lucy in and climbed after her. The car purred away.

THE DOCTOR drove as silently as he could, but three times the brakes squealed as he checked the car to avoid

obstacles in the road. The street lights showed them. One was a car overturned for no reason that they ever discovered. A second was a gruesome smash-up of two cars with three others that had run into the first wreckage. The third was a family that had frozen and toppled to the pavement in the act of crossing the street. The doctor ran up on the sidewalk to go around them.

"They're actually alive," he said as if defensively.

The houses grew fewer. The road became clear. The lurid lights of a filling station loomed up ahead. They drew near it. It was deadly, deathly still save for the blaring of a radio within.

"We'll make sure you've got gas," said Steve crisply.

They pulled in. A big, black, glistening car waited. A filling-station attendant stood beside the pump, looking at the gauge. He was motionless. There was no one in the car. Its occupants had gone inside the station for cigars, perhaps. Steve saw a litter of bodies on the floor.

"I'll take that car," said Steve. "Hunted as I am, I need something with speed to it."

The radio said sonorously:

"—for the tenth consecutive hour, the borders of the plague-stricken areas in New York have remained unchanged. The area about Newark, however, has enlarged twice. The first enlargement was just after sunrise, when investigating parties were stricken. A second enlargement occurred at two this afternoon. Again parties of scientists were victims. It is understood that every member of every party was simultaneously stricken, despite all precautions against infection—"

"Nick Bannerman's gone," said Steve grimly. "They sent him back there!"

The radio went on:

"There is some hope that the virulence of the plague is dying out. This is not an unusual case in epidemics. In any

case, the failure of the plague spots in New York to spread is encouraging. No cases outside of the plague spots have been reported, thus proving that the infection is not carried by the wind. It has been suggested to the plague administration, in fact, that the plague may be artificial—"

Steve's eyes gleamed.
"Brains at last!"

"The suggestion is due to the fact that Steven Waldron, known to have been the source of infection in the New York plague spots, was doing bacteriological research work in a Newark laboratory. It has been suggested that in his experimenting he came upon or developed a new type of bacterium, producing the effects observed in Newark and elsewhere. It is thought that his mind became unbalanced and that he released the new plague because of his insanity. It therefore becomes more important than ever before that this person should be apprehended and prevented from further destruction.

"The plague administration has not officially accepted this view of the origin of the plague, but requests all police officers and all citizens to seize Steven Waldron wherever he may be found. If possible he should be taken unharmed for questioning, but at all costs his career as a plague spreader should be brought to an end."

Steve laughed without any mirth.

"I spoke too soon, crediting the authorities with brains," he said bitterly. "At that, though, I'd probably believe the same thing. Take care, doctor, not to admit you've seen me until the revival process is in full sway and the ones doing it are protected as you are right now."

The doctor very deliberately lifted the gas hose from the tank of the car he had commandeered. The tank was full, now.

"I shall be careful," he said dryly. "I pay you no compliments, Mr. Waldron, not yet. They would be rather futile, when I think what your discovery will mean. I shall drive on to New York

at once. Just one question: Will Miss Blair accept my protection back to the city?"

Steve was silent.

"N-no!" said Lucy. Then she said desperately, "Don't you see, doctor? I've been with Steve. They'd lock me up as a plague spreader, too. And—and Steve and I— M-my father disappeared just before this horrible thing began—"

The doctor held out his hand.

"I understand. I must hurry. I'll go."

"Watch out for refugees," said Steve grimly. "They're crazy to get out of New York!"

The radio cut off the music to which none of the three had listened. The announcer boomed:

"Special news bulletin! All communications with White Plains has ceased! There is no definite information, but it is feared that this city has also become a plague spot!"

Then Steve laughed again, and very bitterly indeed.

"Now the people leaving New York will be sheer lunatics! I hope you make out, doctor! I'm going to load this car with storage batteries from the battery rack I see in the back room. These dry cells won't keep us alive forever."

The doctor stepped on the starter and meshed the gears. He drove off into the night. Steve and Lucy never saw him again. No one has ever learned exactly what became of him, but it is certain that at just this time the panic-stricken mobs trying to leave New York were at their worst. There were ghastly riots on the edge of the metropolis. What few cars did head into the city were seized by fear-maddened folk, forcibly turned around, and driven madly away from it.

Possibly, even probably, Dr. Armstrong of White Plains encountered one of these mobs. Knowing the in-

portance of his errand, he would have protested. He might even have offered resistance. And he would have been killed. In any case, it is certain that he never reached any New York hospital with his information and the apparatus Steve had improvised.

Half an hour after his departure, Lucy and Steve drove away in the other, larger car Steve had chosen. It was loaded down with full charged storage batteries, automobile condensers found in the repair shop stock room, and an assortment of contact points and such induction coils as Steve had been able to discover. He had also taken some canned food.

THEY DROVE OFF into the darkness, leaving behind them a filling-station attendant looking up at a gasoline gauge with an expression of absorption which would remain upon his face for days or hours or weeks, and a litter of bodies on the floor of that same filling station. One of them was laughing heartily at something one of the other figures had said. He would continue to laugh—

Steve drove. At first he drove slowly, using the big car's parking lights only. Then he used the dimmer. At last he turned on the full lights, and the big car leaped ahead. And a long time later a rabbit hopped affrightedly from the road before them, and Steve knew they were beyond the plague spot. He relaxed. He had known a savage unease because of the possibility that one of the high-frequency generators might cease to work at any instant.

"We're out of the dead spot," he told Lucy. "Tell me, while you were frozen, did you know it? Were you conscious?"

"N-no," said Lucy. "One instant I was sitting in the chair, watching you twist two wires together. And suddenly you had your hands on my arms and I wasn't in the chair at all. I didn't have any feeling of time lapse at all."

"I think we should thank Heaven for that," said Steve. "If all those thousands of people could see and hear and feel, but not move— But they won't know anything until they're revived. That, at least, is merciful."

He slowed the car, searching the sides of the road.

"What are you looking for, Steve?"

"A hiding place," said Steve briefly. "These generators we have are all right. They saved us! But they're makeshift affairs. I want to connect them up so they'll use storage-battery current while we're in the car and go on dry cell only if we get out. And I want to change the dry cells. Also, I think you need some rest."

"How about you? I rested last night, even if I didn't sleep. You haven't even been still!"

"All the more reason for a hiding place," said Steve. "When that last news flash about White Plains is confirmed, there'll be another wave of refugees running away from everywhere. We want to be pretty well concealed or they'll try to take this car."

He found a little side road presently. It was hardly more than a timber road, where once there had been a cart track through the pine woods here bordering the concrete. It showed no sign that anybody had traveled it for many weeks. Certainly no car had used it. Steve turned in and drove about a hundred yards, with the low-hanging branches swishing against the car's body.

"O. K.," he said, and cut the ignition. "Now we should be all right until morning. I'm going to fix our life-savers. When they're done, I'll take a nap until sunrise. Curl up in the back and go to sleep if you can."

Lucy hesitated, but then obediently moved to the wide, soft rear seat. Steve cut all lights but the instrument-board bulbs and set to work again by that unsatisfactory illumination.

There was silence. A breeze blew

outside, and tree branches sighed and whispered. Lucy was still. Steve spliced wires and made contacts. From time to time there was a faint humming sound as he tested some new arrangement.

LUCY STIRRED. Then she was quiet for a long time. She stirred again. Then she said: "Serve—(I haven't asked anything about my father for a long time. Does—what you've found out tell you anything about him?"

"Yes. Fran Dutt said he was all right, you remember. I'm sure of it now."

"But, Steve! Where is he?"

"Where Fran Dutt said. In his homeland."

"But Fran said his people were fighting America! What nationality is Fran? What country is it?"

"I've no idea what its people call it," admitted Steve, "and it would be hard to explain—"

"But, Steve, you tell me my father's there! What happened to him? Where did he go?"

Steve hesitated and frowned. He scraped wires busily. Presently he said: "You remember your father was working on some of the applications of Strausman's theory. Strausman sprang his wild ideas all of thirty years back. More, I think. And scientists laughed at him. The theories were too wild! Two objects in the same place at the same time? They said that was ridiculous! When Strausman claimed experimental proof, the scientists of the time laughed harder and wouldn't even go to look at his proofs."

"So Strausman disappeared. He vanished into thin air. And nobody bothered about it. His theories lay fallow for nearly thirty years, until somebody found that he'd anticipated some of the most ticklish and abstruse of modern quanta theories. Then they dug into his stuff. And he had something. I

don't think anybody gets all of it even yet."

"I know. I don't understand what it was, but my father said that much, Steve."

"Just so. Your father grew interested in that two-objects-in-the-same-space-and-same-time angle. It was just about then that Fran Dutt turned up and was so brilliant and so admiring that your father gave him a job as his assistant. Remember?"

"He offered to work without pay, or even to pay for the privilege of working with father in pure scientific research."

"His motives," said Steve ironically, "being as pure and as scientific as possible! As we know now."

He twisted two wires and tightened them with pliers.

"In the living room in your house," he said presently, "there's a mirror hanging on the wall next to the dining room. If you look into that mirror you see another living room in the space where the dining room is. Don't you?"

"You see a reflection," said Lucy. "What has that to do with my father?"

"You'll understand later. You say a reflection, not another room, because you know it's an illusion. You know that the room you see in the mirror is—well—imaginary. You can't walk into it. It does not affect other things which you know are real, and so cannot be real itself. But if it did affect other things it would be real, whether you could walk into it or not. Wouldn't it?"

Lucy knitted her brows. "I suppose I understand," she said doubtfully. "But I don't see—"

"You will presently. Now, Strausman says that the fact that we can't touch a thing—or, say, walk into it—doesn't prove that it doesn't exist. There are a great many things we know exist, but never see: the printing press which prints the morning paper, the radio transmitter which sends out a program

we hear, the dark companion of Sirius. We do not see any of them, and the last we can't possibly see. But we infer their existence by their effects. That's clear enough, isn't it?"

"Yes. I understand that well enough."

"WELL, Straussman took some unexplained effects: the difficulty in calculating the moon's exact position, the anomaly in the orbit of Mercury, half a dozen other things like that. He suggested that they were the effects of—well—something like the reflection of that other room in your mirror. Matter we can't touch or discover in any physical way. Matter, you might say, is another set of dimensions—though that wouldn't be accurate at all."

"Another set of dimensions? You said something about the fourth dimension once before, Steve. Is my father—"

"Wait a bit! Straussman pointed out the extreme probability that all atoms are miniature solar systems, and in even a solid object are relatively as far from each other as the stars are. Then he went into the matter of atomic polarities and the planes of rotation of electrons—what you might call the atomic planes of the ecliptic."

"He suggested that all the atoms of a given bit of matter must have their poles pointing very nearly in the same direction or they wouldn't hold together. They'd have to face the same way, like a company of soldiers. If they don't face together they're not an organization but a mob."

"But, Steve! All this doesn't seem to mean a thing!"

"It means everything," said Steve. "Just before your father disappeared, he was working on an experiment designed to prove or disprove just that! Because, if Straussman is right, there is more than one kind of matter. There are at least three kinds, probably six, possibly eighteen and conceivably fifty-four dif-

ferent kinds of earth, air, water, and, of course, fire."

Lucy was silent.

"Like companies of soldiers," added Steve, "in open order. Some of them face east. Naturally, they're not part of the organization of those who face north. They can pass right through each other as companies of soldiers. And then there are companies lying flat on their backs, staring up at the sky. They wouldn't even see the others as they marched between them."

"Change atoms for soldiers, and atomic poles for faces, and have the atoms face in different directions, and, according to Straussman, the two or three different groups of atoms would have no effect on each other at all. Matter of one of the other sorts could pass right through our kind of matter without causing any effect at all. There's certainly enough space between atoms! We couldn't feel a cannon ball passing through our bodies, if it were made of one of those other sorts of matter."

Lucy spoke fumblingly. "You mean—the same as if it were a fourth dimension such as people write stories about. There might be another world right around the corner, or something like that."

"Good!" said Steve dryly. "I've been hoping to bore you so you'd go to sleep and get some rest. But you've hit it. Only, Straussman says there *has to be* another world occupying the same space as ours. Because the pressure down toward the center of the earth is so tremendous that atoms would be jammed together. And atoms facing—say—in the direction which is east at the moment, would be horribly crowded, yet by merely changing the direction of their poles they'd get plenty of room."

"So some of them would necessarily relieve the pressure by changing. They'd do it until there was another world of atoms facing another way. And then there'd be pressure built up which would

"Yes," said Steve, "they've frozen the town. Take the battery generator—quick!"



cause some to change to another direction still, until—if the raw material held out—there'd be a world in the same space as ours, with its atoms facing in every one of the possible directions. And if the pressure still held up—why, they'd shift back and forth—individual atoms

would—and the three, or six, or eighteen or fifty-four worlds all occupying the same space would be bound together by that fact and all revolve together around the three or six or however many suns occupy the space of our sun. Rather wild, eh?"

"I remember my father talking like that," said Lucy dubiously. "But, Steve, I haven't a head for that sort of thing. And what has it to do with my father's disappearance?"

STEVE was silent while he painstakingly fitted two small parts together. Then he said: "Those mice I worked with had been into something, some artificial condition of some sort, which partly changed the direction of their stem poles. Instead of east or north, they faced part way between. And when I put a direct current through them, they seemed to vanish into thin air. But, actually, it just completed the change in the direction of their stem poles. They all switched over to north. They ceased to be real in our world, but they became real in a world which—well—I suspect it's Fran's world. As you know, alternating current retained them to their former direction, and so to complete reality."

"I think that Fran Dutt turned a sort of pistol on your father, like Professor Jamison's assistant tried to turn on me. Your father became stiffened, like everybody in Newark and White Plains—and as you were. Fran had made arrangements in his own world, and he ran a direct current through your father—not enough to harm him at all, but enough to make your father vanish from our world and appear in that other world, where Fran's compatriots were waiting to welcome him. That's where he is now. And we've Fran's word for it that he's alive and well."

There was silence for a long time.

"How could he—live?" asked Lucy faintly. "It isn't possible!"

"How do you suppose Fran got here?" asked Steve. "He's healthy!"

"Y-yes—" Then Lucy said desperately: "But, Steve! Do you think you can do anything—"

"Of course!" said Steve, as if in surprise. "Armistead's on the way to New

York. When he's revived some patients, he'll explain things. I'll go in, give my proofs that Strassman was right, and set to work with some capable men. It won't take us long to break into Fran's homeland and force those devils to mind their own business!"

Lucy sat still. Then she got up from the back seat, moving to where Steve still worked. She bent over the back of his seat.

"I—don't quite understand, Steve," she said unsteadily, "but somehow I know you can do all you say. Won't—won't you kiss me good-night?"

Steve kissed her and then said gruffly: "Now go back where you belong, woman!"

Steve continued his work, though he had already finished two high-frequency generators which were much better than the original ones. He worked until he heard her soft breathing grow even and regular. There were an incredible number of small sounds in the night outside. The wind in the trees had many varied notes. The rustling of leaves and pine tags made many different, vibrant sounds. Even when Steve shifted his weight in the car there were tiny tinklings.

But, after a long time, he dared turn on the car radio. He kept its volume down to an absolute minimum while he searched for a New York station. And, presently in the darkened car on the unused country road, a voice whispered gutturally:

"The reported outbreak of plague in White Plains has now been confirmed, and forty thousand more human beings are victims to the senseless experimenting of a lunatic. It is now considered as established that Steve Waldron developed the bacterium of the plague during his experimental work in biology. He seems to be immune to its effects, and he rides as a madman, sowing the seeds of death."

"We do have the comfort that the plague does not seem to be infectious in the ordinary sense. But Steven Waldron

infects the earth, so that perhaps for years to come the spaces where he has spread his spawn of death will remain unapproachable to man. I have authority to say that any man who kills this maniac will be praised and rewarded by his fellowmen. He is like a mad dog, to be shot down ruthlessly—"

Steve snapped off the switch and the murmuring voice ceased. And Steve grinned without any mirth at all, alone in the darkness.

VI.

STEVE backed the car out of the little road at dawn, or nearly. Lucy blinked sleep from her eyes and smiled at him confidently. A girl who is going to marry a man is capable of an immense and frequently insane confidence in him.

"Dr. Armistead should have made it safe for us to go to New York now, shouldn't he, Steve?"

Steve shrugged. He had dozed a little toward dawn. Forty-eight hours with no rest to speak of was taking toll of him.

"That's something I can't tell you, Lucy. Let's have something to eat and then turn on the radio."

"Turn it on first, Steve! Good news will give us an appetite."

He grimaced and shook his head. Somehow, he had no real belief that the physician from White Plains had gotten any chance in Manhattan. It was a thing which had to be tried. But somber debate with himself after the last broadcast he'd heard filled him with misgivings. The promptness with which his telephonings to authority had been followed by the appearance of the plague about the spot from which he spoke was evidence either of an almost incredibly efficient spy system or else of an even greater efficiency in wire tapping.

"Which might be the answer, at that," reflected Steve somberly. "They could probably tap in and run their

lines straight over to the other side—"

Lucy looked at him with maternal concern.

"Steve! You look so unhappy! What's the matter?"

"I still feel unpopular," said Steve dryly. "We've grub, all right, but nothing to cook it in. Let's go find a farmhouse that hasn't got a radio and get either breakfast or a way to cook breakfast. Right?"

Her smile was affirmative. He sent the car forward along the broad concrete road. He drove slowly, trying to plan ahead. The road seemed oddly empty. They passed gates which hung open. Once they heard gruntings, and saw swine rooting contentedly in a field of corn, pushing down the tall stalks to get at the ears. Farther on, they saw horses and cattle mixed together in a field of standing rye. Chickens were loose. Gates had not been closed. There was a chair on a roadside, fallen from some vehicle, with a torn patchwork quilt caught in the network of its back. Half a mile on there was a litter of broken crockery on the concrete.

The road came out upon a high place which gave them a view of miles across country. At the very edge of their field of view they saw another road. And the other road was black with a moving mass of cars and trucks and wagons—everything that went on four wheels and could be made to move. It was a veritable serpent of humanity in flight. Fugitives.

Steve braked and regarded the distant exodus with a vast calm.

"It's evident," he said steadily, "that Dr. Armistead hasn't convinced anybody. What we've found out ticks the invaders as soon as it's applied. There'd be no need to run."

He cast his eyes upward. A single line of wire ran on spindling poles alongside the road—a telephone line, of course, with an earth return. Perhaps

a quarter of a mile beyond, another line branched off.

Steve said grimly: "There's an idea! There were spies in New York, but they can't have covered a whole countryside with them, or tapped every wire in the whole State!"

He went ahead. A narrow, rough dirt road led toward a not overly prosperous-looking farmhouse. He turned in. The big car jolted and lurched as Steve drove toward the house. But a single wire went on before them.

They reached the farmyard. The house doors were open. There was a litter of precious and semiprecious objects—from a housewife's viewpoint—scattered here and there. Evidently this family had fled in haste, carrying away only such possessions as were priceless. Gates swung wide. Live stock roamed at large.

Steve stopped the car.

"Now I'll telephone—and see what happens!"

HE WENT INSIDE the house, hunting for the telephone instrument. The smells inside were strange, to a city man. One does not notice smells to which one is accustomed. Here was the smell of wood-burning stoves, and the cookery of many vegetables, and soap, and the entirely uncitified odor of all outdoors coming in an open window.

He found the phone. It had a handle on its box, and to call central it was necessary to twist that handle vigorously. Steve did so, and held the receiver to his ear. He heard the humming, roaring sound which is inseparable from rural telephones, a tinny voice: "Hello?"

"Is this central?" asked Steve quietly.

"Yes. What line do you want?"

There was a sudden pause. Then central's voice said amazedly: "Weren't you rung last night and told to get away at once? White Plains was struck by the plague last night. Everybody is

warned to get as far away from it as possible."

"This is a deserted house," said Steve. "I'm an outsider. Driving by, I stopped in to use the phone. I want to speak to somebody in authority—the mayor, a health official, a State policeman—somebody who hasn't lost his wits in pure funk!"

His tone at the end was sardonic. Central's voice came back, dubious and uncertain.

"I don't understand! What's the matter?"

"My name," said Steve grimly, "is Steve Waldron. I want to give some information——"

He did not finish the sentence. He heard a scared squeak and a crash at the other end of the line. It was not encouraging. Steve winced, his lips twisted. So horrific had his name become, now, that a woman was afraid to listen to him at the other end of a phone wire. The line roared and hummed. Steve turned his head to tell Lucy that it was hopeless to try to communicate.

Then a man's voice said breathlessly, in the receiver: "Hello! Mr. Waldron?"

"Yes," said Steve. "I want to give some information about the plague."

"Mr. Steven Waldron?" insisted the voice more breathlessly still. "The same man who escaped the plague in Newark?"

"Yes! I want to tell you how to revive the victims of what you call the plague!" said Steve. "If you'll pass this——"

"Just a moment! Where are you, Mr. Waldron?"

"In a deserted farmhouse," said Steve impatiently. "If you pass——"

"But which farmhouse, Mr. Waldron? If you really have the information you mention, we'll send a plane out for you. There are several farmhouses on this telephone line." The voice was suave and desperately plausible. "And

how can we send out a plane unless you tell us which one it is? What color is it?"

Steve swore.

"Never mind the farmhouse," he said angrily. "The people in Newark are not dead, nor those in the three dead spots in New York, nor those in White Plains. I came through White Plains last night with apparently dead men all about me, and nothing happened to me. Now I'm telling you how——"

"And the world, Mr. Waldron," said the voice, in a desperate attempt to be hearty and admiring, "the world is waiting for just the information you have to give! Did you say the farmhouse was white?"

"High-frequency current——"

"I may tell you, Mr. Waldron," said the other voice, "that the President of the United States will be glad to receive you and hear your plans. A plane is ready to come for you immediately and take you at once to Washington."

Steve swore savagely.

"Listen to me!" he said furiously. "I know you think I'm crazy! But for Heaven's sake listen to what I say and try it! The people in Newark are not dead! They are in something like a cataleptic state from which they can be roused——"

"Mr. Waldron," the voice protested, aggrievedly, "I don't think you are crazy! Far from it! There have been a few evil-disposed persons who are jealous of your fame. They envy you the reputation you have won by your discovery of——of a way to revive dead people. But you have only to show yourself to prove them fools. If you will only describe the house you are in——"

STEVE HUNG UP the receiver, livid with rage. He went out to the car again.

"I got somebody on the wire," he said, his voice shaking with wrath. "The fool

was so convinced that I am crazy, and the whole world's so sure that I'm spreading the plague, that he wouldn't listen to me. Offering to send a plane for me. Flattering me with offers of a conference with the President. Humiliating me as a lunatic! And all the time trying to get me to describe the house where——"

Lucy stared.

"Plane—description—— Steve! They could tell that you were in one of just a few houses! The phone line would tell them that! And planes——"

"Get back in the car!" said Steve savagely. "Damn them, they'll be trying to trap us. If they did, they'd brag that they had us isolated, and where. Fran's friends have struck four times already, trying to capture us! I'm the most dangerous man in the world to Fran's gang. If we were caught, they'd strike that place——"

The car shot for the gateway. It careened crazily down the long, rough dirt road.

There was a distant, buzzing mutter of the sort that is unmistakably an airplane motor and nothing else in the world. It was very far away. It rose and fell and rose and fell. Suddenly there were distinct, booming detonations—two, three, four, five!

"What's that?" asked Lucy, scared.

"They've given up the idea of isolating us," said Steve. "They want to get me, because I spread the plague. They know the farmhouse I could have telephoned from. They're all supposed to be deserted, except the one I was in. So they're bombing them. It's safer than approaching me and getting the plague!"

Now they were on the concrete. The big car picked up speed with an acceleration which pressed both of them back against their seats. It roared along the smooth road.

There were dull, booming sounds far behind.

"They don't know which house," said

Steve, "so they'll bomb all of them! And if they see this car——"

They went down a steep hill in the road, with a curve at the bottom of it. They rounded that curve. Before them, yet a mile away, was the black, crawling mass of vehicles and men which was humanity in flight from the terror of stillness. It followed a road which crossed the one on which Steve drove. There was not one gap in that swarming line. It filled the road and overflowed it. It crowded itself so that it moved at a snail's pace. From it rose an effluvia which was burned gasoline and cylinder oil, and terror, and the smell of sweating, fear-ridden human beings.

Steve took out the clutch and let the motor idle for a space. Behind him there rose the syncopated, unrhythmic roar of planes in flight.

"See if you can pick them out, Lucy," he said curtly. "If you can, they can see us too, and we're sunk."

Lucy searched the sky through the windows of the moving car.

"N-no, I can't see them. They're behind that hill we just went over."

"In that case," said Steve, "we may live a while longer. We're going to hit this migration."

Again the black car's motor roared. It shot forward. Its siren shrieked. There was no possible way for the mass of fugitives to open a path for it. There was not two feet of space between any two cars. But it shot toward the stream of traffic. The scream of its horn and its seemingly irresistible momentum made a flurry ahead. Cars tried desperately to close up the one-foot or two-foot spaces between them, to avoid being struck. A protesting din of horn hootings arose.

But no clear path opened. The utmost that could be managed was a gap in the line of vehicles nearest the point of collision. And that gap did not go all the way through. It went only into the first line of cars, and the road was

packed solidly for all its width. There was no chance for travel in the opposite direction here!

Steve jammed on the brakes, when the traffic before him was a bedlam of horns and shoutings. He swung the big car around. He got the front wheels in the gap. And then he drove ahead. It was not safe driving. He simply thrust the nose of his car into the line of vehicles and gave all other men the choice of making room for him, or smashing him and themselves.

BITTER CURSINGS rose around him. There were grindings and scrapings. The black car was jarred and struck and dented. There was a wave of bumper clashings which went backward and forward along the line like the disturbing ripples of a stone dropped in water. Where Steve had entered the traffic, too, the line was thickened as if the ribbon of slowly moving cars were a snake and had swallowed some object whole, so that it showed as a lump along the undulating body. But he was in the line, and moving, and breathing in its mephitic fumes, as three planes swooped at terrific speed above the low hill to the left of the road. Then terrific concussions sounded behind them.

They had bombed the last farmhouse. The explosions were so violent as to be heard as deafening above even the tumult of the motors on the road. The shock of their detonation spread out as an earth wave, and was transmitted, even through the rubber tires, to the fugitives in the cars.

The planes whirled and darted back out of sight. There came other explosions, as violent and as loud. Then the droning hum of the plane motors dwindled swiftly until it was a bare mutter, and that mutter merged with the sound of the flight Steve and Lucy had joined.

Lucy was deathly pale. Steve was savagely grim.

"When human beings get an idea in

*The car hurtled forward,
crashed the barrier—"Steve
Waldron! He's gone back!"*



their head," said Steve, "it's unwise to try to get it out."

The car next to them was an ancient taxicab jammed with scared foreigners, including a woman with a pallid, suddenly sleeping baby. The car directly ahead was a delivery truck, obviously from Harlem, loaded to the guards with Negroes. Beside that was a roadster containing seven people.

A motor-cycle and side-car combination seemed lost in the traffic, although carrying three children and a woman beside the operator. A heavy-duty Juggernaut of a truck was filled with household possessions as well as a family—certainly not those of the corporation which officially owned the truck.

There was a sedan, neat and trim and newly polished, but with all the windows on one side smashed as if by rocks; a limousine with a white-haired woman and an elderly man in the back, and servants in livery in the front. The footman beside the driver had a repeating shotgun between his knees. A maid in a neat cap bent over something on the floor. Those in the nearest cars could see a bandaged figure there. And when the elderly man turned his head, there was visible a gory smear across one side of his face.

Driving in this horde of cars, Steve came to realize that there were four lanes—four lines of vehicles. All four lines moved in the same direction, and they moved bumper to bumper, so that there was very rarely indeed any opportunity for any one car to change from one to another.

He noted this first when he realized that one lane of cars was moving more slowly than the rest. His own car edged slowly past the cars on the next parallel line. Presently he saw the cause. There was a wreck in the next line—a firrver of the most antiquated pattern. Steam rose from its radiator and a thunderous thumping noise came from it. More, the stream arose from activity that was

past. The engine was no longer running.

The thumping came from somewhere in the gear case as the wreck on four wheels was pushed along by the car behind it. And that other car did not serve willingly. Its driver cursed and shouted furiously. The other occupants of the pushing car shook fists in frenzied rage.

The little, white-faced man at the wheel of the broken car slumped down in his seat, desperately steering, desperately extracting every inch of distance that he could, from the fact that the man behind could not progress without pushing him. Steve heard a pounding noise and discovered that the wreck on wheels had also a flat tire, which bumped and banged and thumped. But in that traffic it was not possible to change tires or—

THE HORDE of fugitives moved on. Once something made the whole column slow down. It stopped, and there was raging expostulation about the wrecked car. It started again, and a little later the river of moving things flowed past the car which had caught on fire. Men had heaved it from the road by sheer strength, that the flight might go on.

Once, too, planes flew low down the column of automobiles. And once there were further explosions to be heard off to the left. But, for hour after hour, Steve held firmly to his place in the traffic line. He could make no more than five miles an hour, but he was safe from discovery in the mob of those in flight.

Toward noon Lucy—worried, womanlike, about the fact that Steve had had nothing to eat—took Steve's knife and hacked open a can of the fruit they had brought from the filling station in White Plains. She fed him as he drove. Such driving was nerve-racking, requiring constant attention and covering

practically no ground. At Steve's insistence she fed herself also.

She had seen other drivers in the swarm being fed and refreshed in the same way. But the strain was great, not only on men but on machines. Traveling at such low speeds, motors heated and boiled. Then engines seized. Sometimes they caught fire and flamed luridly.

Once they passed a place where the solemn, slow procession parted and went out on the shoulders of the road, to pass around a car which stood deserted, a pyramid of fire. Its gas tank exploded when they were but a hundred yards beyond, and there was tragedy. But the snaillike flight kept on.

Quite suddenly, the line broke. Some cars darted to the right, where a great highway led northeast. Some swerved to the left, and their motors roared as they sped away. Some went straight on, and divided farther along the road, and redivided—

Steve turned on the car radio.

"I've got a hunch," he said grimly, "of what I'll have to do. But we might as well check up on developments during the day."

THE RADIO HUMMED. Music came out of it. Steve estimated the traffic ahead and behind. He drew out of the road. At least he could get back on it when he chose, here.

The music stopped. The loud-speaker said resonantly:

"Special news bulletin: It is still not certain that Steven Waldron has been killed. After spreading his artificial plague about White Plains last night, he communicated with authorities by telephone early this morning. His insanity was evident. He talked incoherently of reviving all the plague victims, which now number nearly six hundred thousand.

"Planes bombed several deserted farmhouses from which his call might have come, but searchers later found no sign of human bodies. Two automobiles which moved in a suspicious fashion were also

bombed. One was found to be in use by a band of looters, rifling the abandoned houses outside the plague area. The occupants of the other car have not yet been identified.

"It is hoped, but it is still not certain, that Waldron is dead, and until his death is positive there remains the possibility of further outbreaks of the plague. Military cordons have already been thrown about Newark and the plague spots in Manhattan proper, and a cordon is being made about White Plains."

Steve snapped off the switch. There was silence. Fifteen feet away, fugitive cars sped by—to vanish in the clouds of dust in the distance.

"It's four o'clock," said Steve. "Lucy, there's only one thing for me to do to knock some sense into the heads of the powers that be. It's going to be dangerous. I'll drive you somewhere to a railroad station. I've got some cash. You can get on a train and go as far as it'll take you—"

"No!" said Lucy fiercely.

"It would be safer," said Steve grimly. "Though how much safer I don't know."

"There are just two people in the world I care about," said Lucy fiercely. "My father and—and you, Steve. My father is—alive, perhaps, but in the hands of the people who are making this monstrous thing they call a plague. And you— Don't you see, Steve, that if anything happens to you I've nothing left to live for anyhow?"

"I'd question that," said Steve dryly. "But, at that, I don't see much for anybody to live for if Fran's gang isn't licked. Fran wanted you to go out West. That means all the East is likely to be frozen. And Fran—" He frowned. "If Fran's people know you're with me—and they probably do—if you were captured they'd make sure of you. Fran risked his life and that of all his family to prevent that! The only choice is staying with me or going West."

"I stay!" said Lucy. "Anywhere you

go. I'm going too. And if you—if you're killed——"

Her voice wavered. She was silent. Steve put his hand on hers.

"You're a good kid, Lucy," he said. Then, brusquely, "Our first job is getting gas and oil. We need it. Then we'll have just about enough time to smash that cordon about Newark in twilight, when we can drive without lights, but can't be seen from a distance. So let's go!"

The wheels spun, gripped the gravel, and the car roared into the traffic which here was speeding, and a bare mile or two back was barely crawling. Three miles on, Steve stopped and bought gas. He asked for road directions to the ferry across the Hudson at Tarrytown. Traffic remained heavy, but not heavy enough to bar a reasonable speed.

They descended into the town of Tarrytown, found it agitated and uneasy. It was far enough away from White Plains, to be sure, but there had been a steady stream of refugees pouring through it, telling lurid tales. The population of Tarrytown was about ready to run away.

They went over on the ferry. They climbed the slanting road that took them to the level of the Palisades. The regular Bear Mountain highway was so thickly packed with cars—all headed northward—that to head south along it would be either dangerous or impossible. Steve had studied road maps on the ferry. Now he drove far enough back from the river to avoid anything like a direct approach to Newark. He did not want to be stopped and questioned.

At that, he was questioned once. It was close to darkness and he had made two slanting trips by secondary roads, so that he was close indeed to Newark.

He had had the radio turned on, and heard the special bulletins as they were broadcast. There was no further development in the matter of the plague.

The bulletins had to do with the exodus of fugitives from New York; with

the exact limits of the dead area in White Plains; with the announcement of a youthful bacteriologist that he had isolated the germ which was responsible for the plague; with the arrest of divers individuals who confidentially offered for sale absolutely sure and certain specifics against the plague.

It was disclosed that for five dollars these gentlemen had offered a draught which immunized you against all germs. They reaped a harvest in Harlem, but nothing like the harvest of bank notes gathered in by the more scientific gentlemen who announced a serum, charged ten dollars for an injection, and gave many hundred people a sense of security and a subcutaneous injection of salt solution—only indifferently sterile.

THE BULLETIN mentioned Steve more than once. Hygerical mobs had thought they recognized him in seven different places. Anybody who acted suspiciously was likely to be taken for Steve Waldron these days, and Steve Waldron and Satan were thought to be one and the same person. Three of the poor devils were killed. The others were at the least severely mauled. Steve heard their discovery, mauling, and proved innocence announced over the air.

But he was stopped and questioned in Englewood. Knowing his surroundings perfectly, he was able to answer all questions satisfactorily. The State trooper warned him against certain roads which led in to Newark, informed him that a military cordon forbade traffic near their line, and waved him on. Steve saw that it would not be easy to get through that cordon.

It was at this moment that he saw—alone among the stores of Englewood—a tiny drug store remaining defiantly open for business. He stopped his car before it and went in. He bought envelopes and paper. He took his foun-

tain pen and scribbled a message. He signed his name.

Fifteen minutes later, a sentry stopped him at a barrier across the road.

"No civilians allowed to go farther," he announced. "The cordon's only a little way farther on. You'll have to turn around, buddy, and go back."

"I've got a letter for the commanding officer," said Steve, "from the mayor of Englewood. The officer in command along here," he said. "I don't know what it's about, but it's important."

The sentry hesitated. Steve held out the envelope. The sentry shrugged.

"O. K. Go ahead! But listen, guy! You don't want to go too far! Maybe a quarter of a mile down this road there's a barrier with a red lantern on it. That's all there is to stop you from goin' right on into the middle of Newark. An' you don't want to go there, guy! Besides, there's orders to shoot to kill if anybody goes into infected territory an' then tries to come back. See?"

"I see," said Steve.

He drove on. Lucy's hand closed tightly on his sleeve. There was a barrier—a red lantern, lighted. A few paces to the right a bonfire burned. Its brightness emphasized the darkness already deepening. Steve came up to the barrier. Soldiers ran to intercept him, shouting.

"Officer in command?" called Steve. "Letter for him."

"Here!" said the officer by the fire.

He came forward leisurely and took the letter from Steve's hand. He returned to the firelight to read it. Other soldiers, of course, relaxed. There seemed no need for vigilance.

But Steve had not stopped his motor. He put the car into low gear, as if to turn around, suddenly shifted gears, sent the car hurtling forward, and hit the barrier with a crash. It toppled over; he rolled across it, and was in the forbidden area in seconds. He flashed on his lights, and instantly flashed them

off again. They had showed him the road ahead. He drove like mad.

BEHIND HIM there was stunned amazement. Every man looked to the commanding officer for orders. He stood staring at the sheet of paper in his hands, with the look of a man regarding a snake. The blood had drained so completely from his face that he looked white even in the ruddy glow of the fire.

He croaked unintelligibly. Then he dropped the paper into the flames. He stripped off his gloves, feverishly, and flung them in also.

"Good Lord!" he croaked. "That was Steven Waldron! He's gone back to Newark!"

He had not read the letter. Like most men, receiving a letter on one sheet, he had glanced first at the signature. And the signature was enough. Steven Waldron! In frozen terror, he thought instantly that this might be the way in which Steve, the plague spreader, had created other plague spots elsewhere—germs, bacteria, in a letter that was opened to scatter them! The officer had dumped the letter frantically into the flames, so that no germs would be scattered about by his aid.

The letter, of course, had contained exact instructions for reviving persons who were victims of the plague. But it had been signed by Steve. Hence it had not been read at all. And, therefore, six hundred thousand people remained stiffened and, to all intents and purposes, dead.

But Steve and Lucy careered onward through darkness, toward the city of silence and of death. At a snapped word from Steve, Lucy turned on the little high-frequency generators which had saved them in White Plains and had been improved since. He did not turn on the car lights, and as he neared the city he slowed down for more-silent driving.

Toward the last the car crawled, while the touch of sunset color faded from the sky and the obscurity of dusk became the blackness of night. Presently something crunched under the car's wheel. Steve could make out the outlines of houses in the outskirts, but he had been unable to see the thing lying on the ground.

Sickened, he stopped. He made sure of his revolver. Then, taking Lucy's hand, he started cautiously toward the center of the town, on foot.

There is no darkness as black as that of an unlighted town. Here, as the houses became solid masses about them, the darkness became more nightmarish because of the stars overhead—and, of course, the silence. There was no sound, in the furry night; no dog, no cat, not even an insect stirred. There was silence which was sheer horror. And that horror became greater when, presently, Lucy stumbled and went to her knees, and found that she had caught herself by putting her hand upon the upturned, dew-wet face of the man who

lay with his face to the stars and did not stir at all.

She bit her lips to keep from crying out. She clung to Steve's hand and stumbled on.

Then he said: "Sh-h-h-h!"

There was a furtive vibration somewhere. Steve led the way toward it. Presently, in the blackness, they made out shapes moving. Motors hummed subduedly. A truck went quietly away; another came. There were men at work—many men, hundreds of men. They worked feverishly, at something unguessable. Then a faint light showed somewhere to guide an arriving truck. They saw one of the men in its faint glow. His appearance was weird, incredible, utterly unhuman.

Then came a rustling at Steve's elbow, and a voice rasped a suspicious challenge—with hundreds of others of its own kind to call upon for aid, when Steve did not reply in its own unintelligible tongue. It came closer and rasped its cryptic, startling speech more suspiciously still.

TO BE CONTINUED.



The—Song from the DARK STAR

A story of Egabl of Xarthon!

by Richard Tooker

LISTEN! It's come back!" Eric Paulson's chair grated back from the supper table, as he leaped to the screen door of the kitchen and looked out startledly across the poultry-dotted farmyard.

The golden blaze of a Dakota sunset wreathed the barn-red stables, granaries and machine sheds in a halo of mystic enchantment. There was nothing unusual to see out there; Eric feared that. Yet he looked eagerly, with a hope that was half dread.

It was unthinkable that a thing invisible could utter such sounds.

"See anything this time, Eric?"

Hans Ahlberg's toil-warped hands upended his cutlery beside a loaded plate. Hans was just the hired man on Eric Paulson's wheat ranch, and supper, bulked bigger to him than tuneless arias of unseen songsters.

Eric didn't answer. His tall, cover-all-clad figure leaned from the half-open screen as if he had frozen there.

Anna Paulson stared with fear-fevered eyes at the back of her listening husband. Anna was listening, too, statuesquely still in her chair before the steaming meal she had served a few moments before—listening with bated breath to that eerie serenade in the yard outside.

In the mellowing glow of the summer sunset, flooding the chintz-draped kitchen windows, her clear Nordic skin

seemed to emanate a macreous, pulsing-luster. A Viking valkyrie incarnate was Eric Paulson's young wife—tall, serene, Juno-molded. But a growing wonder stirred the placidness of her regal brow—wonder and growing fear—the godly awe of a chaste and gentle soul that glimpses the blighting shadow of incredible sin.

Now near, now far, baffling as to exact location, the pean of the unseen singer bladed the hush of evening in that lonely hinterland. From exquisite, rollicking treble, like the witching rondo of a dancing Pan, through chaotic intervals to the droning vibrato of a viol—a brief, repeated strain, without beginning or end—chords of un-Earthly harmony that human sense could never memorize nor human voice intone. The startled farmyard fowls lifted their feathered necks to jerky oglings.

For dragging minutes of sentient suspense the song of the hidden visitor persisted, while Eric vainly searched the yard to the bordering green fields. Then it was gone, as suddenly as it had come. A nerve-rasping, bulletlike rocketing over the rolling prairie hills, and silence marked the secret of a thing that revealed itself as sound alone.

Eric turned back from the door. He wore an odd, strained look as he sat down and pulled up his chair. He looked at Anna anxiously, noting the slight shudder of her broad, smooth.

shoulders as she shifted uneasily in her chair. A quick breath parted mobile lips that were made to smile, as Eric Paulson swept back his virile shock of wavy auburn hair with a lean, brown hand.

His wife of a year had never seemed more beautiful. Was it the magicry of the sunset or the pallor of a secret fear that made her silken yellow hair stand out like dawn against an angel's brow?

"No, I didn't see anything." His voice was perfunctory, almost harsh. "It beats me." He smiled for Anna as he asked with forced steadiness, "That racket getting your goat again, honey?"

"A little." Her voice was low, shaken. "I don't see what it could be. Maybe I'm just scared." And she tried to laugh.

"Like as not it's a new-fangled grasshopper that buzzed over from Kansas," Hans mumbled past a knifeload of fried potatoes.

ERIC PAULSON had graduated from an agricultural school before he inherited his father's half-section farm on the Missouri Slope. He wasn't an ignorant farmer, but in the brief silence while he helped himself to the eggs he knew that the mystery of the invisible songster was out of his line. It was a case for a Hawshaw or a Maeterlinck, and maybe a Freud, since Anna's strange reactions had set in.

For nearly two weeks, now, since haying had begun, they had been hearing that maddening Ariel music off and on. He wouldn't have bothered much about it if it hadn't been that Anna wasn't herself since the first time they'd heard it.

Eric loved his horses, his retted fields; he even had affection for his big plow tractor; but when Anna wasn't right, nothing else meant much in his isolated life as a petty baron of the wheatlands.

The meal went on with desultory, futile speech. Hans did most of the

eating. After he had gone out to finish the chores, Eric and Anna lingered over the litter of dishes.

"What's the matter, Anna?" Eric asked gently. "You talked in your sleep last night, and you never do that unless you have a touch of the flu or something. Is it just that infernal racket that we can't trace? It gives me the creeps, too, but—but I guess it's mostly because of the effect it has on you."

He got up and walked around the table, put his arm around her, felt her splendid body quiver against his breast.

"I don't know, Eric; I don't know." Her voice was a tired moan. "I'm tired somehow—and frightened."

He took her hand, lifted her up, led her into the parlor. With proud strength he picked her up in his arms and sat her on his lap in the big morris chair beside the crooning radio.

"Tell me, Anna; tell me all about it," he caressed her hair with calloused fingers that were not hard in the arts of love.

"It is that music, Eric." Her voice was a muffled sob against his shoulder. "I'm sure now—after last night."

"Sure? And why?"

"Because of a dream—a terrible dream I had. Oh, I didn't want to tell any one, not even you. But I must. If I don't tell some one I'll go crazy!"

"There, there, now—it can't be as bad as that," he inserted too hastily. "Dreams are nothing to worry about."

"If it was only just a dream!" she cried. "Oh, you know I almost never dream—and this, this was too terrible, too real. I don't see how I can ever tell it."

He patted her, pressed her closer. "Tell me the best way you can, honey. Maybe I can help a little."

SHE HESITATED, as if groping among unfamiliar words for figures to express the inexpressible. He felt her strong, fine body quiver against him,

then relax a little as she said tensely: "You remember De Quincey's 'Confessions of an Opium Eater'?"

He nodded vaguely.

"I guess everybody has read it at sometime in life. I read it in high school; but it never meant much to me until last night. De Quincey wrote something about the horror of falling for seeming ages through a black abyss, and seeing cities, civilizations rise and fall before his eyes. He wanted to stop falling; it was agony for him to wait through those ages; but he couldn't stop. He had to go on.

"My dream was like that. I wasn't myself. I seemed to be just—just thought without a body. Something had me in its power—a gray, shadowy, monstrous thing that I couldn't understand and I couldn't resist. I had to go where it took me."

"Go on," he murmured as she faltered, snuggling closer in his arms, as if to hide from the terror of a memory.

"At first it was dark, like the night sky, and terribly cold. But I didn't feel the cold—I just *knew* it was cold. Then there were worlds—suns, millions of stars and moons like round rainbows and globes of blood. I kept sweeping on through black space, sick with fear, and yet I was fascinated, too, like when you see something so awful you can't tear your eyes away.

"I—we—went down to some of the worlds that hung in the blackness. I saw terrible jungles like forests of giant toadstools, or mold like it is under a microscope. In some places there were deserts the color of sunsets and so wide it would take years to cross them.

"I remember living things, monsters that I never dreamed could be, and some beautiful in a way. Once we saw a flock of ghostly flying things like wisps of white clouds. They turned into little whirling, funnel shapes as we looked, and fled away.

"Oh, I can't begin to describe all of

it. I saw more than a person could see naturally in thousands of years, if they could really go where I did with that awful thing.

"The end of the journey seemed to come when we reached a great, dark mass that was dimly lighted by a giant sun. There were millions of black rocks on this world, some as tall as skyscrapers, with fields of glittering crystals, like snow or salt, between. One word rang through my mind as we hovered over the dark world. It makes me shudder to remember it, 'Dead, dead, dead!'"

She turned tight-shut eyes so that they were hidden in the hollow of his shoulder.

"Was there anything else?" Eric's voice was clogged with a husking phlegm. "Any other words that might give us a clue to what caused the dream?"

Her body tensed again and one hand clenched his arm. After a moment she said, "Yes, I remember two words besides that one tragic cry. They were names of something, I think—'Xarthon' and 'Anglo.' Xarthon meant 'the Dark One,' and Anglo 'the Bright One.' Those names came to me somewhere on that dark world near the end of—the dream. Oh, it was all so wild and terrible and confused. I wish I could forget, but something seems to make me remember until I want to scream."

Eric put in tensely, "It must have ended when I awakened you to see what was wrong. You remember, we heard that singing bird or beetle, or whatever it is, at the window that opens on your side of the bed."

She nodded eagerly. "Yes, and the noise stopped—or went away—right afterward, as if we had frightened it, or made it angry."

Her voice choked a little. "Oh, I know how unreasonable, how mad it all sounds, Eric. If I could just believe it was only a dream! But I saw things

that I never could conceive of anywhere on Earth or in Heaven—or even in Hell. And I know those sounds had something to do with it. I'm afraid, Eric—afraid of that thing. I don't know why, but I have a feeling that it's coming back—to take me away—forever."

"Nonsense, Anna! I'd like to see any one, or anything take you away from me."

ERIC'S WORDS were bold, but he swallowed hard on them. A stony dullness crept into his eyes as he held Anna closer. Eric Paulson did not fear the known; he wasn't superstitious, either. Yet he knew that something was wrong in his house since that music had come out of the thin air to curse his happiness with Anna.

"I read something once," he said, "something about the effect of sound vibrations on the human mind."

He was holding his voice masterfully steady for Anna's benefit. She had raised her cameo head, was looking at him with wet eyes that begged for moral support and understanding.

"I think there was something about matter, living matter, being affected by sound, too. The idea seemed to be that just the right pitch of sound vibrations could even kill a person if kept up long enough. Of course, that's all imaginative rot, but that cursed singing thing always harps the same tune. It might be—"

His voice trailed off in the silence of swift reflection. When he spoke again it was with harsh decisiveness.

"Know what I'm going to do, Anna? I'm going to call Tony Zeller."

"Tony Zeller?" She sat up stiffly in his lap, plucking at her skirt, thinking in a flutter of a seedy, little German truck farmer whose words were morosely few and cryptic.

"Sure! Tony can solve this mystery and catch that singing thing if anybody can. He's always puttering around with

crazy experiments and knows more about science than he does about raising potatoes. He even has a stargazer that he made himself. We've got a job for his microscopes now. You don't mind, do you, Anna?"

"Anything you say, Eric." Her tone was listless as she slipped from his lap.

He got up quickly, went to the wall phone that had a crank for use on a party line.

Two shorts and a long. Eric didn't need to wait. Tony Zeller was a prairie hermit, wedded to his stone-house cave. A grouchy "hello" answered Eric. But the screaky, old voice in the receiver changed its tune after a minute of brisk persuasion from Eric Paulson.

"I'll pay you, Tony," Eric begged. "I want this racket stopped. It's driving us all mad."

"I do it for nothing. Be right over." Tony's voice was shrilly eager. "Why didn't you tell me before?"

"He's coming." Eric turned to Anna as he hung up. "We couldn't keep him away with four horses now. I don't know if it will do any good, but—we've got to do something." He sighed as he put his arm in Anna's. "Let's go out and do the dishes, honey. If that singing devil comes around with his pipes I'll take a shotgun to him."

THEY WERE finishing the dishes when the clank and snuffle of Tony Zeller's ancient pick-up advertised his arrival. Eric went out in the dusk and met a bent, thin figure in overalls, street coat and faded crumpler.

Eric clapped a steely hand on the old German's arm after they shook hands. His voice was stinging imperatively: "I'm not calling a doctor unless Anna gets worse. You know why. They'll say she's losing her mind." And you keep your mouth shut, Tony. Understand? No gossip."

Old Tony's broken teeth showed in a ragged, twitching smile of grim humor

as he said, "You know me, Eric, better as that. Do I talk too much? I do not talk enough, they say. The books, the stars, my garden are enough for me. And now—the facts." He scrubbed his hands. "It is stunning, if what you say is true. I cannot believe it. A new species perhaps—"

Anna was in the parlor trying to read a magazine when they went in. Hans' lantern was winking around the barn.

The little Teuton bachelor recluse would have been self-conscious before Anna Paulson's glowing, ravishing beauty in any other situation. But for once Tony Zeller was himself in the presence of seductive woman. Under a broad, bald brow, his eagle black eyes studied Anna as a Burbank reviews a generative progression.

Eric told him simply of the invisible songster that had come to the Paulson ranch like a Pied Piper from Hell. "I don't know if you've heard it over at your place," he concluded, "but if you did you'd never forget it."

Tony shook his head. "I have not heard it. Strange—too strange. I am stunned by this evidence. Nature is the unfathomable, the endless. But the significance—this effect you speak of?" He glanced piercingly to Anna.

Eric's voice faltered a little: "Anna, will you tell Tony about that dream—just as you told it to me?"

"I'll try." Her night-blue eyes were vivid blots of pain. She didn't look at Tony, but to Eric, as a child that hopes for prompting.

As the fantasy unfolded in broken sequence, Tony Zeller hunched out farther on the edge of his chair. His startled, incredulous eyes never left Anna's lips and face. Sometimes his lips moved with hers, and he uttered little exclamations of awe and satisfaction.

"That's all I can tell," Anna finished in a whisper. "Eric you tell him what you said—about sound vibrations hurting people."

AST-9

Eric shook his head, said, "Tony knows more than I about that theory of sound vibrations."

Tony nodded jerkily.

The little German had no eyes for either of them now. His seamy, weathered face was pale with thought, a death's head in which only the eyes were alive with the smoldering intensity of one who trembles to admit the proof of miracles.

"I must hear this music you speak of," he spoke at last in a voice that was husked with emotion. "But the dream—its meaning is clear to me—if the cause is not. The two names—Algol, the Bright One, and Xarthon, the Dark One—are significant—remarkable. Algol is a famous variable star in the constellation of Perseus. It stand for the head of the Medusa. A variable is a star that disappear sometimes. Algol is called the Demon Star because it vanish and come back like black magic."

"But I never herd of it!" Anna cried. "How could I dream of something I know nothing about?"

"Vait!" Tony's voice was hoarsely compelling as he waved a knotty hand. "Of course you didn't know of it! But there is something more wonderful as that in your dream. Dere is a theory in astronomy that Algol vanishes because a dark companion star moves between it and the Earth. Your dream would prove that theory which not the biggest telescopes can prove. Xarthon, the Dark One, is the dark star that eclipses Algol!"

ERIC GASPED, "You mean she could see that in a dream, knowing nothing of astronomy?"

"Himmel, no! Not in the ordinary dream—for has she not said she dreams little? That is the connection with these strange sounds you have heard—what you call the influence of sound vibrations. When I hear this music I can say more—maybe! But

the dream—it is clear. At the speed of thought that same light, Anna journeys through the great, cold darkness of infinite space.

"She see strange worlds, mighty sun stars, queer moons. There are weird beasts and peoples of other worlds. And at the end of this journey of the mind she sees Xarthon, the Dark, and Algot, the Bright. 'Dead, dead, dead' say this voice of the mind. And is not Xarthon a dead star if we accept these premises? And the gray, misty thing that compels Anna to see this, that she fears now—can you not see the connection? The music you hear is not insect, not bird—it is—"

Eric's incredulous gasp cut him off, "You expect us to believe that the sounds influencing Anna are from an unknown star billions of miles away in outer space? Quit yarning, Tony, and come down to Earth!"

"Have I said *faus!*" The little German's words were acrid with reproach. "To find facts from the unknown to the known we make theories. They cost nothing. From them has come everything we know. If you cannot see what makes this music that worry Anna, are my eyes so much better?"

"Listen, Eric—Anna! You know nothing, and I too little of what life can be in the worlds of space. You judge life by a yardstick, like the point of a needle. Have you read Garret Servis in your own language? He say, 'a company of Neptunians might be as iridescent as a flight of soap bubbles.' He made a theory of life on other worlds, to wit, 'They would approach in constitution "disembodied spirits" or ghosts—colligations of gaseous atoms taking the place of the bones, muscles and tissues.'"

"And if life can be gaseous, who can say that life cannot be sound—to you, to me, with only five senses and three dimensions?"

Eric and Anna were staring at Tony in stunned amazement.

"You reason like a Yogi," Eric muttered, twisting his locked fingers. "The idea that sound invisible can be alive is the craziest thing I ever heard of."

The animation died in Tony Zeller's zealous face.

"You t'ink I make fun." His voice was low, wistful. "Let me tell you something, both of you. To-night you have made for me the big moment—maybe. All my life I have lived and studied for one thing alone—to make the great discovery for natural science, for the future when the man of Earth shall explore space. One little paper, like Einstein's relativity, like Newton's law of gravitation—that is all I want. And then I can die happy."

"Now, maybe it come, like a meteor—so sudden I am stunned. You t'ink me crazy. But I do not care. Something tells me—on this little Dakota farm the gift of the ages may have come to-night—the proof of life in the stars—life as Earthman cannot dream!"

Eric got up, uncomfortably. "All right, Tony. I hope your dream comes true; but if you can locate that cursed beetle with an orchestra in its wings and—"

"Listen!" It was Anna's hoarse cry as she and Tony leaped up. Her face was twisted in a piteous agony of fear.

IT WAS a whirring, distant shriek, like a tiny shell hurtling at meteor speed through the outer air, straight toward the house. That thrilling, tenuous scream had scarcely manifested itself, when from the front yard sounded the haunting, exquisite melody of the visitor, chanting its dirge of nameless mystery.

"Eric! Don't let it in! Don't let it come near me!" Anna moaned.

Tony Zeller ran out the front door, onto the porch, and looked off into the grayling starlight where that weird song throbbed like the lyre of Calliope.

Eric had dashed into the kitchen. His



The tentacles reached out—and his mind and body were instruments with which a master did his will!

ice-blue eyes were grimly hard as he came back through the parlor with a pump gun.

He stamped out on the porch with Tony, raised the gun with passion-shaken hands.

"Go on! Shoot!" Tony Zeller's cracked voice was hoarse with derision. "Maybe the sky rain ducks!"

"I'll put a scare into it," Eric gulped, "and I might happen to hit it."

He pumped three crashing shots into the starlighted front yard. He shot at the sounds as nearly as he could tell from where they came. Then he tilted the hot gun, listened. There was no faltering in the song from the starlight. Instead, it moved nearer, louder, until it seemed directly before the porch. The treble notes were a gleeful, elfin laughter, the bass held an ominous snore of gloat.

Eric emptied the shotgun from his hip. It was a futile, desperate gesture. Like strong night wind under the eaves, the song went on before them, dolefully beautiful and sinister, a fragment of some demon symphony rendered by a bard of the gods.

"You see?" Tony Zeller's tones were flat, strained. "It is no insect. No fiddling wings can make such sounds. The range is not in the larynx of even the mocking bird. Put away the gun, Eric. There is work for us—to save Anna."

Eric swung fiercely on the shadowy figure of the little German. "What do you mean—save Anna? What in the name of Heaven could it want, with her?"

Tony's withered hand was gentle, but insistent on Eric's arm. "That is for us to find out, Eric. Come! We must go in to Anna. She has need of more help than all this little world can give!"

THEY HURRIED IN. Anna was lying back in the morris chair, pale and still. She spoke to Eric as he felt anxiously of her pulse, but her voice was

listless, her eyes absent, unseeing. The song throbbed on outside, hovering near the door, as elusive as night-singing cicadas.

"I'm so sleepy," Anna murmured. "Take me to bed, Eric. Don't leave me. I—I am going away."

Eric looked his alarm at Tony; but Tony had bent to the radio, was turning it on full blast, until the parlor racked with blaring static.

Anna roused a little. It seemed the cacophony of the radio helped to counteract the mystic menace of the singer without.

Gently, Eric led her to their bedroom, opening off an alcove of the parlor, and closed the door. Through the raucous tumult of the radio they could hear the clarion treble of the singing thing in front of the house, not loud, but penetrating, with excruciating sentence of pitch.

Unuttered curses writhed on Eric's lips as he sat with Anna on the edge of the bed, held her close, felt her tremble and twist in an agony like the travail of a spirit birth.

Then, suddenly, as it had so many times before, the singing ceased in the brief, bee-like whine, as of a thing that hurtled away at incredible speed.

In the parlor, Tony Zeller turned off the roosting radio.

"It's gone again," Eric said, but there was no exultation in his voice. He seemed resigned to the certainty that his curse, and Anna's, would return.

Anna passed a groping, chilled hand through the cool billows of her shining hair. Her eyes were dazed, delirious. She was a child in his hands as he helped her to bed. As he tucked her in she seemed to sink away into unnatural sleep, a torpor that terrified him.

Tony Zeller was coming in from the porch when Eric stepped softly from the bedroom, leaving the door half open. Tony's face seemed almost pasty around the bottomless murk of the dilated eyes.

"I've got to do something," Eric whispered, frantically. "She's in some kind of coma. I'll call Doc Stangby at New England. But, Heaven knows, if this ever gets out they'll make a side show out of the ranch, and that will be worse for Anna."

"Call the doctor, Eric," Tony said, quietly. "It will do no good, I think, but it is best course—if the worst should happen."

"You think there's no hope?" Eric groaned. "The radio—didn't it scare the thing away when you turned it on loud?"

Tony shook his head solemnly. A wan smile quirked his ascetic lips. "I turn the radio on loud maybe to help Anna a little—to fight it. Radio is just a toy to this thing. I say no more till I have the proof—but Anna is in the hands of God."

Eric reeled to the telephone and rang for the doctor. "He'll be right o.k. but it's twenty miles," he said between short, painful breaths, as he turned from the phone.

Tony Zeller had sat down like a man in a trance. Hans stamped in from the chores. He paused a moment with a question on his lips. Then he tramped upstairs to bed, with an anxious look on his round, honest face.

IN THE STILLNESS of deepening night, Eric waited, slowly pacing the floor. Tony was waiting, too, he knew that—waiting for that song of Satan to return, to its inexplicable, fearful mission.

"I'll take her away," Eric stopped once, his eyes lighting with feverish hope.

Tony shook his head slowly, "You cannot take her away—from that." His words were sentences of death. "Did you not hear it come and go?"

They went into the bedroom together a little later and looked down at Anna.

Tony lifted an eyelid gently, felt of the slow, faint pulse.

"It is unnatural sleep," he whispered. "Like hypnosis. Medicine does not know this sleep."

"Anna!" Eric knelt at the bedside. "How can God let this happen to you—my beautiful, my goddess!"

Tony turned away and sat down in a chair near the wall, left Eric with head buried in the bedclothes, between his outflung arms. The slow, moribund sigh of Anna's breathing soughed eerily through the still room. And then from the windless night a whirring, swelling burst of clarion sound, like the blind flight of a great male locust in the mating amuck.

Eric's head jerked up. His eyes swelled in an agony of fear; his fists were clenched and quivering. And in the instant he moved the singer was in the room and the house was thrumming with wild melody.

Anna stirred. The streaming curves of her tall body bowed and writhed beneath the coverlet.

Tony Zeller stared as one dead who looks upon eternity beyond the grave.

A curse died on Eric's lips, as a stinging tremor bathed his skin. A numbness was stealing through him. The searing, livid pain of that exquisite music racked him like a rending voltage.

The room faded before his set gaze, faded to gray, steaming mists of indefinacy. The singing grew faint and fainter, gradually dying away. And then he saw the thing of Anna's dream: a shrouded clot of that swimming translucence all around him, a netted mass of hoary ganglia and veinous fibers, drawing to a peaked, eyeless head like the nucleus of some great, phantom amozba.

He couldn't move in the unnatural stillness. A horror, an abasing awe, froze his blood. Vaguely, he discerned the lucent outlines of the bed, Anna's

still, quiescent form, Tony Zeller seated motionless in the chair.

Netted tentacles branched from the mass that hovered over Anna—a mass half in, half out of the misted walls of the bedroom. One arm extended to his head, another, others, to Anna's body, still another stretched to the head of Tony Zeller, like conduits from some intricate nerve assembly.

He couldn't feel those countless filament fingers that were closed in his brain, yet he knew that somehow he was a part of them, his mind and body delicate instruments with which a master did his will.

A VOICE was speaking, clear, deep, sonorously compelling. He didn't know where it came from. It might have come from anywhere—as voices that speak in the mind a conscience prompting.

"Hear me, oh, Earthlings! It is I, Egabl, who speaks. Egabl of the dead star Xarthon, whose black bosom glimmers in the light of the star you name Algol, the Demon. In the language of thought I speak, and you hear me as a spirit echo; for I am master of life's soul that you vaguely know as vibrations.

"You see me now, oh, Earthlings, as with my infinite powers I merge with your lower organisms for a brief space. All is a mist to your animal vision, that to me is a mere tropism. And mists we must be to one another, for only to that imperfect extent can we meet across the abyss of our separate evolutions. Would that we might merge wholly; but to my sorrow I have learned that cannot be.

"My history and the fact of my being can mean little to you. Your greatest mind cannot credit my kind in the limitations of their senses. Yet for your comfort—alas, I wish it were mine also!—I may explain in so far as your primi-

tive intelligences can interpret the vibrations.

"Hear, then, oh, fieldings of the Great Womb, that you of Earth are three dimensional, and I, the last of the Xarthon kind, am of but one dimension. You perceived me first as sound alone, and in your natural state I am to you no more than a tetra of sound.

"I move as thought from vision to vision. My food is the rays of the cosmos that your plants reduce for you in indirect digestion. My beginning was in countless ages past, when all Xarthons were sexed; my end shall be countless ages hence, though now and anon I wish that end were soon, for I am as the Wandering Jew in your mythology.

"Light years gone by, oh, Earthlings, as you measure time, I left Xarthon, the last of my great race. Know you that Xarthon was once a hot star, but it cooled and gave forth life as a planet. Not life as you know it on your tiny world, but Life as the Great Womb knows it—life as variable as its individuals in species.

"We were a great people, we Xarthons, immune to heats and chills, to storm and starvation and violent death. But we would be greater; we would be one with the Spirit of Life that made fertile the womb of worlds. We lived long, but we would live forever.

"And we were wise in alchemy. Eternal life we believed we had achieved—my fathers in ages past. Sex we abolished, for it seemed we could live forever, and sex was a crude and primitive thing, beneath our dignity. But when the last of our female kind was gone, and our bridges of propagation burned behind us, we learned too late that our lives were not eternal. Ages we might live in an ecstasy of fancy and the sensations of infinite mind, but there was an end as the Great Womb decreed.

"One day, which to you would be

a century, we found a member missing from our unchanging number. We were alarmed and distraught, for it was incredible that aught of misfortune should come to one of us. Our greatest minds were baffled, until, with our infinite powers, we found traces of our lost brother in the atomic orders of our atmosphere. Dead! Dead without cause that we could see.

THERE WAS mourning among us, and fear, but too late! One by one, through the ages, our number dwindled; dying without cause, the natural death which you call old age, though our span of years would be as eons to you. We could not recall our lost sex complements for propagation. We had committed the unpardonable sin against the Great Womb that bore us. And the price we must pay was extinction for our proud and godlike breed.

"And when the last of my brothers died, and I was alone on Xarthon, I faced away from the great sepulcher of my kind, hoping blindly in the worlds of space to find the female complement that would with me rebear my race on some new world.

"Therefore we had feared to venture beyond the stratum of our native atmosphere. But I was desperate. I cared not for life alone. I chanced all to retrace the errors of my fathers, and through the powers of my one-dimensional being, that you can never conceive, I have survived thus far in my pilgrimage through space.

"Countless worlds I searched vainly for the flesh that would provide my female. Countless more worlds will I search no doubt before the end, and mayhap I shall succeed, though here I face but one more failure.

"Little I expected to find desirable life upon this tiny dot of matter between the galaxies, and yet I came, for I am infinitely thorough in all that I do. I saw this woman and she was fair—not

fair in the flesh as you see fairness. I see deeper, to the singing voice that is the spirit of female life—the calyx of vibrations that I coveted.

"Oh, do not think that I have not looked on others of her kind! Between the times that you have perceived me as repeated sounds, I searched your tiny, infant planet from nation to nation, shore to shore and even from isle to isle. But I found this woman most nearly perfect for my purposes, strongest to endure the transition of the living spirit to a segment of my vibratory matrix.

"But I have failed again. So far and no further will she merge. To exert the full force of my powers would reduce to astral ash that precious treasure I have sought throughout the universe. I could leave her dead, a shell of flesh to draw your tears, Earthlings, but I choose not. For know you that we of Xarthon have ever been just and kind in our way.

"If I could take that life from her and make it woman of my kind I would not hesitate to grieve you, and you and all your ordinance of nations would be powerless to resist that theft of life. My race is far greater than yours and well deserving of such sacrifice. But now I leave her with you, whole and well, to serve her feeble time in the primal joys and woes that are a fullness for your kind.

"Last night I came to this woman in a dream and revealed to her during my examination of her organism the wonders of space and time, a glimpse of the powers of life in its highest orders. I hoped for favorable response. But she was much afraid and resisted me. Stark reality for me was to her a terrible dream.

"I left her under my control as one of your spiders stupefies an insect with a measured poison. I left her to make anatomical comparisons among her sisters. Some few, widely scattered around

your world, remember fearful dreams. But I shall come no more to haunt these simple souls, and the sounds of my presence shall be forgotten as illusions of the senses. So does ignorance and innocence escape the wonders of infinite knowledge!

"To-night I have come to her for the last time. I am convinced of failure now. She will not merge. You see the extensions of my being playing through her now, manipulating each nerve as you perform upon a pipe organ, even as other extensions of my matrix play through you who are of my vibrations, the male kind.

"Fear not, my children! I go to come no more. Before your feeble sun dawns again I shall be centuries afar in the void, seeking new forms of life for my purposes. Hear me, oh, Earthlings! Life too low becomes one with the dust, and life too high reverts to ether that is the Womb of Life.

"Remember or forget, as you will. I am Egabl of Xarthon, and I come but once to the various peoples of space. Farewell! Farewell!"

ERIC MOVED in a brief vertigo of lightning change. The gray form vanished. The room flashed clearly before his startled, aching eyes. It was as if he had slept a moment, yet he knew that his eyes had never closed. Nor had they winked, for they smarted, arid of tears.

In the distance he thought he heard a whirring scream across the vault of the night—like the shriek of a damned soul lost forever in immemorial silence.

He heard Tony Zeller cry out in

agony a phrase of Latin, "*Ecce homo! Ecce homo, Egabl!*"

It was Anna who quickened his pulse to surging life again. Her face had flushed with warm color. She was opening her eyes, struggling up.

"Eric," she called softly as their hands met in a clinging clasp. "You know now. You heard. You dreamed with me!"

He drew her into his arms, kissed her hungrily, moaning his gratitude.

The muffled clang of a car door closing in the yard outside parted them reluctantly.

"It's the doctor," Eric said, and went out to tell him that all was well.

When the mystified doctor had gone, Eric said to Tony Zeller, "You've got what you need for that paper now. It will make you greater than Einstein. This world has never heard the like—and even now I'm wondering if it wasn't all a dream."

Tony sighed. The light had gone from his brilliant eyes. "It is wonderful just to know," he murmured. "But the evidence—ah, the evidence, Eric. There is none."

"Evidence! Didn't Anna and I experience it with you? We'll be witnesses to prove what you say!"

Tony had his old felt hat in hand as he stood at the door.

"Eric," he said, solemnly, "if the testimony of speech and the observations of laymen was conclusive, then spiritism would be a positive science. My chance has come—but it was too big. Not even Millikan could do it! May God and Egabl bless you and Anna—good-night!"





*"A green cloud
it seemed to be
—swallowed up
the people and
left empty seats!"*

Deserted Universe

by John Russell
Fearn

MY NAME, so far as I can interpret it into your language, is Moviz-Kaflo, and my home planet is that of Kroj, situated in the Fifth Galaxy, in a universe outside of your own.

I leave this manuscript in a sealed container within a silent metropolis, which I have found is called New York City. One day, perchance, life will return to this world of Earth. When it

does, this manuscript—pieced together from my own individual experiences; the diaries of one Peter Conroy, engineer; Dr. Hugh Calthorpe, psychologist; and the newspaper columns of one James Bates, reporter on the *New York Mirror*—will be found and will explain the profound riddle that is bound to face future generations, if any should come.

How my fellows and I came to Earth is of little import. We came across it in the year 2062, Earth time, in the ordinary course of a space cruise. Beholding below us clear evidences of cities indicative of intelligent minds, we landed. We experienced some little difficulty with the terrestrial air and gravitation, but in time, with the apparatus at our command, were able to overcome these disadvantages.

Imagine our surprise, then, at finding, all over this world of Earth, distinct traces of activity stopped, as it were, in mid-air. Nowhere in the crumbling cities could we find a trace of life—no remains, no skeletons, nothing to explain the profound mystery that brooded over this obviously once-prosperous world.

We looked into rooms, where we found what were apparently meals, still laid on dust-and-dirt-choked tables. We gazed upon machines which had run of their own accord until their power had failed. Many times, too, we came across words which finished in mid-sentence; and upon the still flowing and ebbing seas were ships, rusted, and absolutely deserted from end to end; whilst the ship's log, as I understand it is called, ended—like so many other strange messages—in mid-sentence—

What more natural than that we set ourselves to solve this uncanny mystery. It had added interest for us in that, in our travels through this particular universe we had not found a single planet possessing life, though we had

come across evidences that intelligent life had once existed.

For months—which lengthened into Earthly years—we pursued our investigations. Though we found no trace of living soul or corpse, we did finally discover dusty, worn relics in the region of the once mighty city of New York known as Fifth Avenue. Here, I repeat, we found the clue to the problem—which, by further investigations in silent, empty newspaper offices was supported by further irrefutable writings.

These things I have pieced together in the nearest approach to an Earthly literary style. It has been difficult to master your language, so if this is ever read again by Earthly beings they must make allowances where necessary.

When it is ended I shall place it in an incorrodible container and leave it within the most predominant New York building I can see. I learn it is called the Empire State Building, according to your maps.

And now to the story, as I see it in the light of gathered facts. There comes first the diaried notes of Peter Conroy, the engineer, and Dr. Calthorpe, the psychologist, which exactly match up. And later comes the report of Bates, the reporter, written exactly as it appears the strange incidents must have happened.

Moviz-Kallo.

II.

THE DOOR of the immense library closed quietly and discreetly behind Peter Conroy, engineer. He walked slowly and deliberately across the thick pile carpet and paused at last before the massive desk. Dr. Hugh Calthorpe, famous psychologist, was sitting waiting for him. In silence he had studied his visitor's advance.

Inwardly, Conroy was shocked by the change in the expert in five short years. No longer was he the bluff, red-faced

savant whom he had consulted regarding some trifling mental trouble which had once afflicted him; instead he was pale, incredibly emaciated, his mouth drawn into tight lines from continuous battle with pain, his dark eyes staring from the midst of a creased parchment that had once been a face.

"Hello, Conroy," he greeted, with a faint smile, holding out a hawklike hand. "You're wondering why I should pick on you to come here, eh?"

The young man dropped into the chair indicated to him, then nodded. "It comes as a surprise that you even remember me, sir," he confessed. "After all, I was only in your care for two months, and during that time—"

"During that time you evinced an interest beyond the average, not only in your own complaint, which we soon cured, but in psychology and its countless ramifications. That interest of yours stimulated me, Conroy—came just at a time when I needed it.

"I have made some remarkable discoveries during these past years, of such a nature that I am unwilling to trust them to the medical faculty after my death, and therefore I am entrusting them to you. First, because you and I became such friends; second, because you are an engineer with a hobby of psychology, who will readily understand the facts I intend putting before you."

"Did—did you say after your death?" Conroy asked quietly.

Calthorpe slowly nodded. "I did. It requires no particular brilliance to perceive that I am nearly dead now. Advanced phthisis—at the most I have only a month to live. But it is not until I am dead that the real experiment will commence."

Calthorpe paused, watching the young man's reactions—then, leaning across the desk, he resumed, in a lower voice: "Conroy, I have made a discovery which, if I can prove it to be correct, will revolutionize nearly every known

scientific theory concerning life on this planet of ours. You may remember, when under my care, remarking one day that life seems a silly business—so pointless? So very few of us leave our imprints on the sands of time. Life, as a whole, seems to drive to no purpose; we are surrounded by so many inexplicable enigmas. You remember saying that?"

"Certainly I do. I remember commenting upon the problem of where all life is to eventually lead us, and for what reason we are trying to progress. What is it for, anyhow? The thought of mere personal gratification seems impossible. There are so few really advanced thinkers."

"Exactly." Calthorpe nodded quickly. "As I reason it out, Conroy, it is not life that is our real existence—but death! Or rather what appears to be death to our blind, confined mortal senses."

"But—" the young man began in protest; then he was waved into silence.

"HEAR ME OUT, Conroy, whilst the thing is fresh in my mind. Where, for instance, do our mental aims and purposes come from when we are born? Where do they go to when we die? During our life span the majority of us accomplish hardly anything; only about ten per cent of the world's inhabitants—and that is a generous estimate!—prove to be geniuses enough to advance Earthly knowledge.

"When they die their abilities die with them and pass into—what? Something we do not know as yet. They have made their contribution to progress, yes, but with what aim in mind? It is usually attributed to some inner sense of impulsion that they cannot control—genius will out, as the saying is.

"These rare beings care nothing for fame and fortune, only the powers that their minds can give. Yet they know that they are destined to die and probably never to see the ultimate fruition

of their brilliance. So you see, the problem is left undone. The great purpose behind their efforts is unseen—unknown."

"True enough," Conroy nodded slowly. "For the same reason, what happened to those incredibly clever ancient civilizations whom we cannot even equal? What was *their* purpose? Why did they die out at the peak of achievement?"

"An excellent example," the doctor responded keenly. "I believe, my boy—in fact, I have almost proved it—that the brilliance we give off in our lives is to some end which we cannot see. Further, I believe that from birth to death we are in a kind of trance, a dream, dictated to by some other power immovably linked to the vast complexity which we call universal thought. There is much to support the view.

"Assuming we are in a dream, obeying higher dictates, it is natural to assume that very few will have the correct mental apparatus to rectify and fully utilize those commands, wherever they come from. Those few we term geniuses. The others form the mere useless background, adding a little to progress admitted, but nowhere near the vast attainments of the few isolated master minds.

"Another thing is the comparative uselessness of the lives of average people. They get nowhere. They are hurrying toward some mythical goal. Only those who have master minds can dimly foresee the *real* goal. The other struggle is exactly akin to the pointless wandering of a dream. That is but another reason why I suspect that life is a dream, an instant in the course of what is otherwise a vast and tremendous existence."

"Then, sir, assuming our mortal frames are purely the carriers of brains that take orders, what do you imagine our *real* beings are like?" Conroy asked quietly.

"That I don't know, but I am proposing to discover for myself. I cannot in all sanity believe, Conroy, that these piffing little bits of bodies constitute our real selves. Why, they're absurd! They hover on a border line of extinction. For instance, organized life, as we know it, cannot live above one hundred and forty degrees Fahrenheit or below twenty below zero.

"Our life is so utterly preposterous, balanced as though some scientist had deliberately arranged it and was forced to conserve his material in so doing. Do you realize that the census of all life on this planet is proved, in proportion, to be less than one hundred millionth* of the weight of Earth itself?"

"I didn't know that," Conroy admitted thoughtfully.

"We're useless, Conroy! We can't see a fourth dimension; we spend half of our lives asleep; we understand only the veriest edges of the cosmos; and usually in threescore years and ten it's all over!" The psychologist smiled bitterly. "No, I can't believe in that! Something must exist—beyond!"

"I agree with you, sir. But even so, I don't quite see what can be done about it. After all, there's no way of finding what lies before birth and after death."

"Before birth is a difficult problem, I admit—but after death is not so difficult. That is why I sent for you. When I die, Conroy, I shall want you to record my entire stock of impressions by means of machinery I have specially devised."

THE YOUNG MAN started—then stared. "You what?" he asked blankly.

"Sounds queer in cold words, I know; but I haven't studied psychology all my life for nothing. Dreams, the perplex-subconscious region, sense perception, hypnotism—all these states have come directly under my notice. Upon the

* English Speaking.

advent of death, however, the brain ceases to work mainly because of the setting in of mortification. I have made arrangements so that, upon my death, my body shall not mortify; it will lie in a perfectly normal state, dead so far as activity and motion are concerned, but so long as it is in that condition my brain will be able to still record impressions.

"I could not speak those impressions; I shall be unable to hear with my ears. It will all be a concept of thought. But in that way I believe I shall see beyond death. I have positive proof that the nonmortification of a body enables the brain to keep alive long after apparent death has set in."

"Proof?"

"I have studied the methods of the ancient Egyptians. There was more in their crude body embalming than just love of perpetuation of a certain person, Conroy. Their brains functioned for centuries after their bodies died. So long as there was no mortification they continued to live, mentally. Deaths caused by the pillage of Egyptian tombs by explorers have not been so coincidental, either. Mummies, in an indirect way, provided the basis of my modern version."

For a long time after that Conroy sat in silence, then he looked at the expert with a strange light in his eyes.

"Then you propose, after you die, doctor, to explain exactly what happens and prove to your satisfaction and everybody else's exactly what we're living for?" he asked incredulously.

"You have the idea exactly, and you will perceive therefore why I must have a trustworthy person to assist me to carry out the experiment, and one conversant with the methods of psychology. I remembered your interest and looked you up. Briefly, Conroy, I am prepared to will everything to you, if you in turn, upon my death, will take over control. You will have two assistants to aid you,

both worthy men, but they are not the type to whom I would care to give a free hand.

"You may be assured that everything will be legally arranged; nothing will be left to chance. If you decide to accept the proposition we'll start in to-morrow, and I'll show you exactly how the machinery works. Your final duty will be merely to hand the record of my after-death experiences to the Institute of Psychology. They know already of my intentions, and are also frankly skeptical. Now, what do you say?"

"Well, I—er—hardly know what to say," Conroy returned breathlessly.

"I know that, but the circumstances of my disease compel rapid action. However, think it over during to-day, and let me know first thing in the morning. How's that?"

Conroy nodded quickly. "O. K.—that's fine. I'll be here to-morrow without fail, no matter what my answer."

"I shall hope, sincerely, that it will be in the affirmative, my boy."

III.

IT SEEMS almost needless to record that Peter Conroy accepted the proposition. Two things influenced him very strongly; one that Calthorpe was the possessor of a considerable fortune, and the other the uncanny nature of the experiment itself.

All monetary considerations aside, it is probable that the enthusiastic young man would have accepted for the mystery of the thing alone. He forsook his engineering post—in any case, he reflected that he knew of another one he could almost certainly pick up if the thing fell through—and presented himself at the doctor's Fifth Avenue residence for the first negotiations.

The legal technicalities were dispensed with in the first morning. Then, after lunch—at which Calthorpe himself also, hardly anything—they adjourned to the



private laboratory where the doctor commenced a detailed description of his apparatus.

Undoubtedly his equipment spoke highly for his inventive capacity, and revealed how thoroughly he had gone into his subject. Many of the devices were familiar to Conroy as connected with surgery, but most amazing of all were the machines for the after-death transmission.

The main apparatus consisted of a long glass cylinder into which, Calthorpe explained, his body was to be slid upon death. It was then to be sealed up. Poised over this glass cylinder, at carefully measured angles, were objects resembling solar arcs—massive, curiously



He saw Earth and Sun, the hottest suns and stars—yet felt nothing!

wrought filaments standing predominantly from the midst of brilliantly polished concave reflectors. Then came a series of air pipes, a pumping machine, and electric heating wires affixed to the base of the tube itself, all controlled by thermostatic devices.

"Here, of course, is the actual death-bed," Calthorpe remarked with a grim smile, indicating the tube. "These arcs here utilize a form of energy fairly similar to that of the cosmic ray. Their exact purpose is to destroy chemical change the instant it forms in my dead

body. Chemical change alone, as you will be aware, is the cause of putrefaction.

"So long as these arcs are in action there can be no mortification; under their influence no change can take place. I could, of course, have had my body sealed in a vacuum; but that wouldn't do, because to function properly, my brain must have air. So I had to seek out this device of giving a body air and yet preventing it decaying. Here, though, is the more important part of the apparatus—in fact, the most important."

He pointed to the termination of the cylinder, and Conroy observed for the first time that it ended in a device of flexible leather, shaped exactly like a diver's helmet. To its exterior we attached a numberless series of differently colored wires, leading back to the remoter areas of the laboratory, where there stood a labyrinth of unorthodox apparatus.

"That helmet has been specially designed to fit my head as tightly as a glove fits a hand," Calthorpe explained steadily. "I know it is efficient because I have already tested it. Inside it are a multitude of tiny wires, each one very carefully placed so as to be in exact juxtaposition with the sensory nerves of my brain—in actual contact indeed, save for the intervention of the skull bone, which makes not the slightest difference. A deaf man can hear by the bone of his ear; in a similar manner the nerves of the brain can pass their impressions through bone substances.

"You notice the major contacts at cerebellum, occipital lobe and frontal lobes? Those are the main seats of human intelligence. The nerve vibrations within my brain as I perceive—or conceive—fresh impressions will be conducted along the appropriate wires from the helmet. Those wires may actually be called extensions of the nerves themselves. The vibrations will be slight,

but will be stepped up in power by automatic amplifiers and then transferred to that helmet over there."

THE TWO moved across to another apparatus, far too much like an electric chair for Conroy's peace of mind. On its summit reposed another leather helmet, only differing in that it was provided with adjustable clips in order to ensure absolute contact with the person concerned.

"The person sitting here will receive the exact impressions registering in my brain by literal thought transference," Calthorpe went on steadily. "You will be that man, Conroy. There is nothing whatever to fear. You have a break switch on the arm of the chair here; if anything goes wrong you can instantly cut contact. Since nothing will go wrong you will learn what I have to tell, and then record the entire story in the usual way, handing the finished manuscript to the Institute of Psychology, as I mentioned before."

That, it appeared, comprised the main bulk of apparatus. From that time onward Conroy's whole attention was taken up in absorbing all the knowledge Calthorpe steadily drilled into him—and during those days of learning he watched, with some sorrow, his mentor's swift decline toward death.

Specialists were in constant attendance upon him, urged all kinds of methods by which he might prolong his life, but to all their suggestions he turned a deaf ear. He fought rigidly and obstinately against pain for days and nights on end, but there came a period at last, some five weeks after Conroy's arrival, when he was finally confined to his bed.

It seems needless to dwell upon his passing. It is recorded that he died at 10 p. m. on the night of September 5th, 1951. That was the signal for instant action, the specialists themselves know-

ing exactly what was intended to be done with Calthorpe's corpse.

IV.

AIDED by his assistants, who possessed the names of Bennett and Mason, Conroy carried the dead body down to the laboratory and, true to instructions, placed it at full length, unclothed, within the death tube. The cosmic lamps were switched on and bathed the still, emaciated figure in violet radiance, so dazzling to the eye that the three found it necessary after a while to don tinted goggles.

Unwearied, carried away with enthusiasm for the experiment, the men got to work on the heating and air apparatus—then, switching the helmets into commission, Conroy took up his position rather gingerly in the transference chair, and slowly eased the helmet into position on his head.

According to his diary he had never felt very reassured by the sinister, all-embracing grip of that helmet; he likened it to the application of artificial dentures for the first time. Every part of his head was suddenly in a firm but immovable grip—but as for sensation there was none at all, to commence with.

Conroy sat quite still, hands resting on the chair arms, his gaze alternating between his anxious-faced assistants and the silent, nude body of the dead doctor. Still nothing happened. Then, just as he was about to declare the whole thing a failure, there came upon his mentality a rushing wave of telepathic power—so powerful, so inhuman, that he nearly fell out of the chair. His limbs twitched; his head reeled. In an instant of time, it seemed, he ceased utterly to become aware of his own personality.

It was equivalent to an exceptionally powerful anesthetic. The brightly-lighted laboratory blurred and vanished from comprehension before he could

even speak or break the contact. He lost all idea of everything. He became abruptly none other than Calthorpe himself, so utterly swayed was he by the power of the dead man's mind. Self reeled away into an unknown gulf.

That being so, Conroy beheld things entirely through the mind of Calthorpe. He lived the same events; his brain reflected every impression of the transmitting one.

At first there was a vision that he took to be space itself. A vast and all-surrounding blackness dotted with the glowing of innumerable coldly winking stars. He saw Earth and Sun rushing away into immeasurable distance. Stars and nebulae passed by him with utter soundlessness. At times it appeared that he even passed through the glowing core of the hottest suns and stars, and yet felt nothing—

Then, from amidst this onrush through space there grew upon his auditory senses a clicking and tapping, which he began to recognize as the movements of individuals gently lowering instruments into basins of sterilizing fluid.

Abruptly, startlingly so, everything was vividly clear. The vision of infinity passed away and he gazed, for a space uncertainly, upon a square, highly intelligent face, lent added distinction by reason of the massive bald dome surmounting it. The shoulders of the man, too, appeared more than usually large, covered in a spotless white surgeon's smock.

"You may rise," he announced in a deep, grave voice. Somehow his mouth did not seem to form English words, but just the same the dual minds of Calthorpe and Conroy understood him.

Slowly Calthorpe got up from the long operating table upon which he had been lying, trying to shake the obfuscation from his mind.

"Why are you so thoughtful, my young friend?" the surgeon asked presently, his eyes upon him.

"I—I died," Calthorpe said uncertainly, passing a hand over his forehead. "At—at least, I think I did!"

"Nonsense!" The surgeon's teeth gleamed in a smile. "Just fancy. Many of us sometimes get that impression whilst undergoing the cell operation. It is purely a vague hangover of the operation itself. You didn't die—far from it. You are still the young man Vanrod, who has attained his majority and therefore must give his customary contribution to the science of our world."

LITTLE BY LITTLE it began to seep into Conroy's intellect that he was Vanrod, a young man who, akin to his fellows, was possessed of a tremendous and far-reaching intelligence, able to understand the profoundest riddles of space and time, gifted with almost eternal life. He had a vague remembrance now of having come to this supersurgery earlier in the day to undergo the operation common to all men and women attaining their majority—the operation of sacrificing one cell of his brain in the cause of his planet's science.

He raised an arm to his head again, then once more sought the eyes of the master surgeon.

"I repeat, sir; I died!" he declared in a low voice.

At that the older man's expression changed slightly. Sudden concern came into his eyes.

"Once before when that happened our experiment was ruined," he muttered. "There have, too, been isolated instances of what we might call recession. Tell me, what did you see, Vanrod?"

"I was living on a planet called Earth. I lived there for forty-eight years and became an eminent psychologist. Then I was stricken with a deadly disease and decided I would see—see what lay beyond Earthly death."

"What?" The stare in the surgeon's eyes was terrifying. "You what?" he

thundered, shaking the young man by the shoulders.

"I invented apparatus by which I could probe beyond Earthly death. I kept my body free from mortification. Oh, I don't begin to understand all this!" Vanrod sank down weakly on the chair at the foot of the operating table, still gazing up into the surgeon's now grim, set face.

"Vanrod," he said slowly, "do you realize what you have done?"

"How can I? I don't even know the nature of your experiments. What is this cell operation for?"

The surgeon smiled bitterly. "It hardly matters now; you have ruined it. Just as it was ruined once before. Still, perhaps I had better enlighten you. For many years it has been our custom to isolate one brain cell from every healthy man and woman. This is done by a process of advanced electric surgery, so small are the cells concerned. They are far beyond all visual range. However, it is our belief that we are made up of living, thinking creatures, infinitely below us in the scale of intellect, and for that reason we have tried to spawn a race of beings from the cells of ourselves. You understand? A living cell isolated will pursue its own way, inheriting a few of our own original thoughts and characteristics."

"Go on——"

"That world of Earth, as you call it, was but the veriest electronic fragment existing somewhere within the electrically-charged globe where we have placed our cell specimens. Presumably you saw a universe from this Earth world—all you could have really seen was the boundaries of our surgical globe."

"The Earthly universe is circular," Vanrod nodded. "It is filled with galaxies and——"

"You may take it for granted that the galaxies and stars were purely the electric currents suffusing the globe,"

the surgeon grunted. "You say you were a human being, a doctor of psychology. How much did you know?"

"I realize now that I knew very little. But then, all Earthlings are alike. They have no idea of the real basis of life, the real nature of their minds. They are so unlike us."

"Naturally. That body you had was one cell from your brain, just as the other humans you encountered were the cells from the brains of our millions of fellowmen and women. Don't you perceive, Vanrod, that Earth beings, as you call them, are but the basic cells of infinitely complex organisms—ourselves? Just as human beings are probably composed of infinitely smaller organisms existing only to themselves!"

"That is correct, they are," Vanrod breathed. "But—but what have I done that is so wrong?"

"I will tell you. Normally, when a cell has done its work it dies, passes on to fresh formation. That is the ordinary course of death. But you rendered that cell unkillable, unchangeable, and yet withdrew from it its guiding mind. In short, you upset the finely balanced atomic aggregation we set up."

"I still don't understand what you mean."

"THE BASIS of that Earthly life—or rather the life which we spawned from here—is naturally figured out exactly in terms of energy, balance, and so forth. We have reckoned exactly what will happen when one cell dies and a change of form takes place. But you have defeated that perfect balance by leaving a live cell—live in so far that it is not changing!

"Mortification, you perceive, is the correct chemical change for altering the dead body, or cell, into another form. You have changed the entire life stream of the cells called humans, and that very fact will mean a new order of energies, utterly unpredictable, which will wipe

out every trace of cellular life and transform it into something else—not necessarily life, but probably a new, inert atomic state."

"But——" Vanrod began in protest. "It happened once before," the surgeon went on broodingly. "A type of cell we bred happened on a similar experiment to yours, but more crude, and it resulted in complete annihilation of all the cells. Fortunately we were successful in striking again the correct atomic coincidence, an almost unheard of scientific feat. It is extremely doubtful if we can do it again in this instance. It means, too, not only the end of life on that world of Earth, but throughout the bowl—the universe."

"Those occurrences you speak of would match up with the vanished races of the past," Vanrod murmured, "Egyptians—Atlanteans, maybe. Vanishing crews at sea, missing people—perhaps they all link up to it. But tell me, how was it that I saw all this? How comes it that I lived for apparently forty-eight years and have returned with the full memory of it?"

"The time state can naturally be relegated to mathematical contraction; as for the memory, it is because you linked yourself to the cell even when it was dead, and carried the memory with you, otherwise you would have awakened here in the ordinary way and remembered nothing. Your cell, or body, would have lived normally as the millions of others have done, pursuing what they fondly imagine is a form of progress, but what is really an offshoot of knowledge from our own immensely superior brains, just as bacteria exist within human beings."

"Only at times, through their subconscious regions, do these human cells glimpse the underlying truths of their birth—but never has one behaved so drastically as you. I know not what to do, Vanrod. I know not what to do!"

Vanrod seemed unperturbed; the nature of the experiment had gripped his scientific imagination. "In ordinary death, then," he went on, "the minds of humans do not return here?"

"I have already said that the minds of the dead cells pass into the new form of cellular life that occurs through chemical change, dividing itself into the requisite number of parts, and multiplying from then on. A dead body changes into millions of minute organisms. Each one of those possesses, in exact degree, a fragment of the mind, of the body from which they came, just as humans are fragments of the minds of us.

"I can only repeat that, outside those other isolate instances, you are the only one to return and tell us what you have seen, and reveal, too, the grim nature of your dabblings. Destroy one iota of the perfect energy balance of a living unit, Vanrod, and the whole thing will undergo a vast and a tremendous change. That is inevitable."

"Then——" Vanrod commenced helplessly.

"There is nothing you can do," the surgeon interrupted coldly, glancing toward the immense globe which held, in invisibility, the entire Earthly universe. "Our experiment, for the second time in history, has failed. We shall never know to what extent spawned cells of our brains might have developed. Our hopes of building the homunculus of a new race are shattered. You have tried to explore beyond the mysteries of Earthly death, and I shudder to think of the repercussions upon your luckless fellows left behind."

V.

SOMETHING was stinging the throat of Peter Conroy; strange, vigorous movements were taking place about his wrists. He opened his eyes tardily, expecting to again behold the face of the master surgeon; but instead he met

the familiar details of Calthorpe's own laboratory, whilst bending over him were his two assistants.

"Better, sir?" inquired Mason anxiously, helping him to his feet. "You fell out of the chair, Mr. Conroy. I think the slipping of poor Dr. Calthorpe's helmet broke the contact, or something. Incidentally, something's happening to him," he added in concern. "He's—he's glowing!"

Conroy looked blankly across at the recumbent form in the glass tube, then started violently. The dead body of Calthorpe had changed incredibly. It was no longer a dead-white, emaciated corpse, but a thing of glowing, astounding wonder, hurling forth waves of coppery green light to the four corners of the laboratory. In an instant there returned to his mind the amazing memory of the thing he had experienced, the actual adventure of Calthorpe himself beyond death.

"What happened, sir?" Bennett asked curiously. "Anything unusual?"

"I'll say so," Conroy retorted. "Hand me that diary. I've got to record it all whilst it's fresh in my mind. You can read as I write. And turn off those cosmic lamps; we may yet save that body. I doubt it, though," he added dubiously, and tugging his pen from his pocket began to scribble hastily.

Mason and Bennett, the task of the ray lamps' extinguishment duly done, watched over Conroy's shoulder, trying vainly to figure the matter out. Conroy inwardly admitted he only half understood the thing himself; but he did realize, amidst the blur of less defined things, that humans were but the basic organisms from which a vaster, more complex organism was formed, and also that humans were but spawned cells in the experiments of the unknown scientists beyond the known universe.

Yes, that was understandable; it tallied with scientific facts so far as he knew them; it explained away the pro-



Imagine our surprise—distinct traces of activity stopped, as it were, in mid-air.

found riddle of life's commencement. But the realization that Calthorpe's dabbings were to change the whole energy balance of life was a worry of considerable dimensions. For some reason an old rhyme quoted by Eddington began to run steadily through Conroy's mind as he desperately scribbled—an absurd bit of doggerel, and yet it conveyed a sense of meaning to him:

There was once a brainy baboon
Who always breathed down a bassoon,
For he said, "It appears
That in billions of years
I shall certainly hit on a tune."

Dimly, Conroy remembered that that doggerel was meant to imply that a law of coincidence governs life. A certain number of atoms had originally congregated to form life as humans know it. Time and time again—multimillions to one—the chance has missed; but finally, in the fashion of the baboon, it had come off and life had just happened. That was the scientific account of origin, yes; but now that coincidence had been disturbed by Calthorpe's activities, life would undergo a violent, radical change, with once again a multimillion to one chance of ever reforming the same way. The scientists of the unknown planet had twice hit the right coincidence—hitting it a third time was surely tempting Nature too far.

Conroy ceased to write. His assistants ceased to watch. The three turned to dazedly watch the green radiance that still bathed the slowly shrinking frame of the dead Calthorpe, despite the extinguishment of the cosmic lamps.

An abrupt, alarming realization of deadly danger surged over Conroy. He opened his mouth to shout out orders, but the words were stricken from his lips. His two assistants were enveloped in a sudden writhing radiance of the green light. Between them and the glowing corpse in the tube there extended now a visible arm of emerald

light. The place was a mass of glowing, inexplicable energy.

Conroy screamed hoarsely, took a stumbling step toward their evaporating bodies, then the thing caught him, too. He was conscious only of a tearing pain, a vast, tremendous reshuffling of atomic formations—

VI.

BRADY, editor of the *Mirror*, stared at his ace reporter with easily the most amazed stare of his long, energetic career.

"An entire crowd of fifty thousand people disappeared at a football game?" he repeated blankly. "What in hell are you talking about, Bates? This is a newspaper, not a children's fairy-story corner."

Bates was passionately insistent. "I tell you it's true, chief! I was over on that Henderson assignment, flying there, and I saw the whole thing from the air. A sort of green cloud it seemed to be—swallowed up the people and left empty seats! It got the players, too, before they could even move."

"Holy cat!" The technicalities were too much for Brady, but his news sense was unimpaired. "Front-page write-up!" he barked out. "Snap into it, Bates! Copy boy! Hold that press and—"

And within half an hour the news was on the street—all the more incredible because it was absolutely true. Fifty thousand souls had vanished without a trace. More enterprising editors looked up information on the vanished crew of the *Mary Celeste* and found therein a vague correlation. The public read, wondered, and for the most part openly scoffed.

Nevertheless, there hung in the autumnal air of that September evening a vague, indefinable sensation of impending dread. The atmosphere was still, abnormally so, and as the night stole on

more than one turned to thinking of the incredible vanishment of the afternoon—and wondered.

And whilst they wondered, the green radiance that had its birth in the vicinity of Fifth Avenue slowly spread its powers of atomic reshuffling through all living things. Restive animals gave their owners perpetual trouble. There were countless scores who rushed out, irritated, to discover what ailed their pets, only to find them disappearing into green vapor. Not for long did they gaze upon this incredible transformation, for they themselves were almost incontinently overwhelmed.

A shudder passed through the entire construction of Earthly and universal life. It plumbed the deepest sea, it reached to the furthest known world—a vibrant, ever-increasing wave of unknown energy, hurling atomic formations from the pinnacles upon which they had rested by scientific coincidence for millennia.

By the morning New York was an empty city.

The remainder of a panic-stricken world's population struggled vainly to understand what had happened—and failed. Upon every hand were green waves of radiation. Mankind, animals, birds, fishes, every bacteria, were all caught in the transfiguration. Within forty-eight hours the work of centuries untold was shattered. Not a living thing remained. It had all been transformed into some other form of inert atoms, and thus it would remain until the scientists of the far-distant planet hit again on the coincidence of life.

In that empty Earth, still and calm, there lay the solution to the riddle of the world's earlier races who had so

mysteriously disappeared. To the future generations alone, granting that coincidence ever happened for the third time, the cities of the world, untouched, would offer the greatest riddle in cosmic history.

VII.

I HAVE told the story as it must have happened, straining for accuracy of event. Now I shall depart with my fellows—with one last observation. When we arrived here we found no trace of the green energy mentioned so irrefutably by Conroy and Bates. We can only assume that with the passing of all life the energy formed itself into a non-living state, an aggregate of atomic constructions lacking the power of motivation, an inexplicable state which we do not understand.

We would record too many collapses and subsidences caused by the sudden death of living matter, notably many buildings in various countries where they have been built upon inconceivable myriads of tiny animalcule life.

We, of course, of a universe beyond this Earthly one, were untouched, uninvolved in this immense cosmic upheaval. But we realize now why we saw only deserted worlds on our journey here.

Because one mortal man endeavored to see beyond death, it appears that he excommunicated all life. The thoughts, the aspirations, the strange ideals of those spawned cells called living beings have passed into an unknown spatial state, where they will remain forever inert, unless, perhaps, some new cosmic coincidence brings life back again to this deserted universe.

Moviz-Kafo.

Next Month:

GODSON OF ALMARLU

by RAYMOND Z. GALLUN

Let's Get Down to BRASS TACKS



AN OPEN FORUM OF CONTROVERSIAL OPINION

Weinbaum Memorial Volume.

Dear Editor:

This is to announce that the memorial volume of the works of Stanley G. Weinbaum has gone to press and will be ready for distribution on or about October 1st.

By popular demand of the magazine fans of this amazing writer, whose enthusiastic response has been warm to them about, we are leading off the book with a long-worth unpublished novelette entitled *Stew of Flame*.

The other stories the book will contain are: *The Northern Odyssey*, his first science-fiction story and the most beloved of all; (*This story was not requested; it was demanded!*) *The Mad Moon*, which seems to rank equally with the third choice, *The Adaptive Ultimate*, as among his very best; *The Lotus Eaters*, best liked of the Ham Hammond series; *The Worlds of If*, best liked of the Van Manderspoort series.

The edition is going to be extremely limited, since first summary of subscribers shows that our schedule will be filled early. However, for those of you who wish to read the volume, now that the original story is to be published (historically, your only chance to read this magnificent piece of science-fiction) plans are being made to allow for doubling the edition if response makes it necessary. Therefore, I advise you to write so soon to getting your order in. The cost of the book has been placed at \$1.50, and first preference will be given to those who write with their order. Those who answered the first call have already been notified, and have placed on the reserved list. If by any chance any of you may not be able to pay the above amount, please write me directly, stating your difficulty, and I will make personal arrangements to take care of you according to your ability. We want none of Stanley's fans to miss the opportunity to own a copy of this book.

None of us can now doubt that Stanley G. Weinbaum was the greatest science-fiction author to date. Such enthusiasm, such praise, such demand for publication of everything he ever wrote which led to *Horizons of Space of Flame*, his longest novelette, and perhaps his most deeply written, can bring but one conclusion: Stanley G. Weinbaum was truly great.

I wish to express the sincere thanks of Mrs. Weinbaum, the Milwaukee Fictionists, and my-

self, to you for your wonderful support, and your splendid letters. Never, in my experience as one of the leading fans in the country, combined at various times with other like activities, have I seen such enthusiastic appreciation. To tell the truth, I had some doubts as to the feasibility of the volume now gone to press, but they have been swiftly shattered. Science-fiction fans are indeed amazing in their loyalty and fervor. No wonder science-fiction has advanced to be a power in the fiction world.

Stanley G. Weinbaum is dead, but before he died he completed a work on which he spent ten whole years of tremendous effort. His whole literary life was wrapped up in this work and he gave it the best that was in him. He never submitted it to any publisher. And being a science-fiction writer of the pulp type, for only one year, he did not believe it was fit for their consumption either. And, too, it was written about a subject that made it editorially reportable by *Amazing Stories*, the only market that might possibly have considered it. So he never submitted it.

This work has been read by myself, W. Byron Johnson, one of America's really prominent writers and critics, Julian Schwartz, Otto Binder, one of your favorite authors, and this is what they say about it:

Julian Schwartz: "An incredible work: its merit is published." W. Byron Johnson: "Magnificent!" Otto Binder: "A colossal work: I am determined that it shall be published." And to add to these words, I will say that I have never read and never will read a greater science-fiction novel and will publish it if I have to eat black bread for twenty years.

The novel is "The New Adam." How many more of you want to see it published? We can't publish it in *Amazing* and it doesn't seem that we could find a book publisher willing to risk it. However, considering the success of this memorial volume, I feel that it can be given to at least those science-fiction readers who believe in the future of science-fiction as a power in literature with just a bit more assistance on their part. I believe that if Mr. Tremaine, editor of this magazine, were to read the story, he would urge his readers to force publication of "The New Adam." I know he would regret the taboo that makes it impossible in his page.

I read me your opinion on this novel and your

order for the memorial volume. Make checks payable to Raymond A. Palmer and address me at 2016 West Michigan Street, Milwaukee, Wisconsin.

Can You Explain This?

Dear Editor:

Having followed Brass Tacks for a long time, I wish to submit a problem: Is my house I have no shadow here but (a) above and below it an electric light bulb (B). Sitting at an angle I can see nothing but looking at the surface. But as I place my hand to cast a shadow, I can clearly see the floor. Can you explain this?—John Demetris, 14 Clark Street, Newark, New Jersey.



Coming of Age.

Dear Editor:

Let me tell you: that the July issue of *Ante-dooming Stories* is your best; that this issue, because of Doid's and Wonne's fine drawings, was furnished with sufficient merit to carry it through, regardless of the quality of the stories; that, although I haven't read all the stories yet, *Fractional Lenses* is as cleverly written, thought-provoking yarn; that one can easily see *Ante-dooming* has an editor who isn't letting up one bit in his efforts to give us a constantly improving magazine.

Therefore, in view of all this—congratulations! The new *Ante-dooming Stories* with this issue—its thirty-fourth—has come of age! May you have luck in the competitive degree and may the number of issues issued from thirty-four well into the thousands!—Corwin Siskany, Jr., 24 Dawson Street, Belleville, New Jersey.

Very Good—or Bad.

Editor, *Ante-dooming Stories*:

Your stories were good. However, I was a little disappointed in *Paradox* and *Australians*. Code of the *Spaceways*, by C. B. Krus, was terrible, as usual. Your science article is swell. I haven't, as yet read *The Comets*. I am glad Doid has returned. For a while I thought you were going to leave Wonne. He is improving all the time. Marchland is rotten. Let Wonne do at least one cover.

See if you can get stories by Lovecraft, Talbot, and A. Merritt. I think you should be able to put out a quarterly. You have the largest circulation of any science-fiction magazine. It would also be a good idea to include a picture of the author with your stories.—E. M. Stubbs, 1306 Wayne Avenue, Detroit, Michigan.

There Are More Letters Than We Can Print.

Editor, *Ante-dooming Stories*:

Congrats as usual on your anniversary. But I think you're too modest. Despite such stories as *Australians* and the *W-42* series, the *Street & South Ante-dooming Stories* is far better than the old magazine. There was only one saw in

the proverbial statement—the old had Wonne-lowish. Now that you've remedied that fault, the magazine is incomparably superior to its predecessor.

I retract that third sentence. There is another saw. There is not nearly enough space devoted to the readers' section. If you were to double the number of pages devoted to it—even at the expense of cutting down on the stories—it would be an immense improvement. But possibly there aren't enough letters written to fill an enlarged "Brass Tacks," in which event there doesn't seem to be much that can be done about it, beyond exhorting the readers to write.

There is a question which has been bothering me. Perhaps some of the mathematical wizards among your subscribers can help me out. There are two extraneous in quantities: one and infinity. It is obvious that there can be nothing which is less than nothing nor more than everything. But there are numbers beyond nothing, the negative or minus numbers. Is it then possible that there are numbers beyond infinity?—Ellen Andrews, 349 St. John's Place, Brooklyn, New York.

It Gets Him—Finally.

Dear Editor:

Is it possible? Such a thing is absolutely astounding, unbelievable. I am overcome with ecstasy, enraptured by the sheer reality of such an inimitable occurrence. Between the covers of a pulp magazine selling for twenty cents and bearing the title "*Ante-dooming Stories*" are gathered four masterpieces, conceived by four masters—four of the greatest authors alive. According to the laws of chance, the following combination of authors would occur about once in a million issues of an ordinary magazine: Don A. Stuart, Nat Schuchman, Jack Williamson, and John W. Campbell, Jr. If I have had been among the group I would probably be writing this from a padded cell and begging my lawyer to bail me.

While I am serving my sentence, here's one for the inimitable Doid. Welcome back! Also a bouquet for Mr. Winterbottom.

Ante-dooming Stories has broken the laws of chance, but don't worry, Ed. I know the judge. I'll get you out in a bit.

In reading Brass Tacks I noticed several letters that stated that *Ante-dooming Stories* is the best science-fiction publication. And the writers of these letters seem to think they were accomplishing out magazine. Of course it is the best—but that by itself doesn't mean it is any good. *Ante-dooming Stories* has only two competitors and they are both in-meritless. To rightly praise the magazine, they should say, "*Ante-dooming Stories* is the best science-fiction magazine that has ever been on the market. I have been reluctant to offer this statement until now, but the July issue has changed my mind."

After reading this letter (if you do) you may have gathered by reading between the lines that I was pleased with the July issue of *Ante-dooming Stories*. Here's hoping that a quarterly will soon be for sale.—Caroline Hays, Route 4, Box 270, Louisville, Kentucky.

We Can Please—Sometimes.

Dear Mr. Tremaine:

The July issue was an issue worth celebrating as anniversary with *Paradox*. Again Nat Schuchman proves his right to be called one of the greatest living science-fiction authors. Can't you get him to write a book-length novel? Both the *Novellette*, *Fractional Lenses* and *Australians*, which made a little to the action side, were well written and entertaining tales. *The Comets*—well, superior by far to *The Legion of Space*. *The Time Destructor*, *The Virus* and *The Fringe That Vanished* were all true and had science-fiction shorts. The Campbell feature continues with interest.

Not so much to the cover this time. Glad to see Doid back in full swing. Why don't you try him on the cover? It would be a good idea, on the contrain page, to give the title of the cover story as well as the name of the artist. I think a change to the large size would bring us closer to the 100,000 mark.

I am glad to know that we can yet read another of Stanley G. Weinbaum's masterpieces. I understand that he wrote a novel. You ought to get out before some one else does. Everything Weinbaum has written is worth. Nothing of his should fail to see print.—Jack Iarrow, 3447 North Francisco Avenue, Chicago, Illinois.

A Philosophy for Bad Drawings.

Dear Editor:

Stanley Weinbaum: What a great magazine you've got! All others are certainly on the run. Your competitors are now learning only to-morrow. And who have we got to thank? Why, Astounding, of course. Only one thing, now that you have turned the others to what they are, don't let good ones' sake, degrade your own. We readers just won't stand, will we? Another thing I would like to suggest is that you give a short comment at the end of each letter in Brain Tacks.

I'm not the kind to fret and worry over your articles as some do. I like all the illustrations, good or bad, and when there is a poor one (it sometimes happens) it gives me a greater appreciation for the rest. One thing, however: why don't you try to get an artist from some science-fiction cartoon strip to do a story for you? Give it a try and let the readers decide.

I have been reading Astounding Stories for over a year and a half but have been a science-fiction fan more or less since I was ten years old. I am now fourteen and with some one my own age would communicate with me. Please have Doid do an illustration for the Brain Tacks heading. The old one is simply rotten.—James Avery, 55 Middle Street, Skowhegan, Maine.

A Comparison with "the Good Old Days."

Dear Editor:

During the past fifteen months I have read science-fiction written during every era of its evolution. I have also read many weird and semi-weird stories. I feel, therefore, more or less competent to compare the present type of science-fiction with that written in "the good old days."

You will probably be surprised to know that the stories written from 1875 until 1931 were with few exceptions superior to anything written since. Naturally I was quite startled to know that of all my modern favorites, only four are able to compare with the old times—and three of those were written at that time. The four I mention are John W. Campbell, Jr., E. E. Smith, Jack Williamson—all of whom were featured in the "good old days"—and Stanley G. Weinbaum. My interest was aroused by this and I have read the last few months attempting to discover the reason. I find that in all cases the writer of yesterday formed his plot and story around some scientific fact or theory. Today the authors tack on the science as an afterthought.

In contrast to this, if a modern writer includes any true science it is merely added on to a haphazard maker and simply serves to destroy the illusion. This practice has given rise to a great number of letters denouncing science in stories. If the science were an integral and necessary part of the story and plot it would serve to heighten the interest. For examples of this type of story, read anything by the four authors named in their stories. Science seems to appear in a logical manner and adds interest in reality to the story instead of bursting into the middle of the climax and leaving the hero falling into the sea while

the author discourses academically about the sun. This type of story now so prevalent isn't science-fiction. It isn't even good fiction. It's trash! What we need is not less science but more science properly worked into the plot.

Now, about the illusion: The illusion is that quality in a story that makes the readers live with the characters. This illusion is a very fragile thing and can be broken with even a single word. When any word or statement calls attention to itself, it makes the reader remember that after all, he is only reading a story. It recalls him to his own world and thereby destroys the feeling of realism which is the author's duty to preserve. The authors of the "good old days" were evidently acutely aware of this fact. Not so are the hacks of today. Especially so is H. P. Lovecraft. He continually breaks the illusion by references to "mad Arab" and the "Necronomicon," which has the deplorable effect of making the reader stop and wonder, "What the heck is this Necronomicon anyway?" I am not an isolated case in this respect. Many other readers have written that they could not understand or didn't like Lovecraft's stories. So, while I hate to disagree with Jack Iarrow, I must insist that Lovecraft's stories are the farthest things from "the quality of a story that those who rave of the good old days are looking for."

Mr. Editor, let me, in view of the above facts, make an earnest plea for no more stories like *At the Mountains of Madness* and *The Shadow Out of Time*.—Arthur E. Mink, 215 Pierce Street, Boise, Idaho.

He Doesn't Like Kruse.

Dear Mr. Tremaine:

Let me heartily commend you for refusing to devote your editorials to announcements for the coming stories. I hope this month's editorial contains a procedure.

Your stories are getting better every month. With the exception of *The Code of the Spaceways* all your stories were top-notchers. Keep up the good work by getting the one thing hitherto lacking in your magazine—David Kruse. Why do you keep Kruse? We know you have to play up to the juvenile element but there aren't hardly enough readers of five or six to compensate for the disgust of the older readers.—Alan J. Alvestrand, 591 Academy Road, Woodbury, New York.

Criticism—Condensed.

Dear Mr. Tremaine:

Just a card to let you know of my appreciation of the July issue, the best illustrated you have ever published. Warm, great! Doid, back with banners flying: Basty, too. Um Schmeiss a little more, will you? Thompson is good, but Marchand is always a little mediocre.

Condensed criticism: You seem to have Hoppe and Platon confused. You print too many second-rate squibs and the authors seem to write with the "squeal-to-the-offing" idea. Why not expel Marchand? He's two-thirds gone anyway. *Land Chrysalis*, *Little Green Stone*, *The Vase*, *Red Storm on Jupiter*, *At the Center of Gravity*, *Eraser*, *Centaur*, *Prisoners of Love*, *Redemption*, *Code*, *Smashed Aces*, *Conceit*, *Paradox*. Haven't we stood Kruse long enough?—Walter Gormley Oak Lodge, Mount Peon, Road 14, Pennsylvania.

Editorial Comments Again.

Dear Editor:

There seems to be a sort of discussion going on concerning editorial comments in Brain Tacks. This is not a matter of very great importance but even the little things are important in a magazine with the high standard of Astounding.

The usual plan is to put in two or three paragraphs of comment immediately below the letter to be answered. After a time these comments tend to become dry, monotonous, and rather unimportant. In fact, they have come to be regarded as something funny by the readers of magazines who answer letters this way.

Anteonding's present plan is a vast improvement over this. The Editor's Page and the headings on the letters in Brass Tacks are a better understood and more informal way of answering the readers. And it must not be forgotten that Anteonding answers most of his letters personally. This friendly and informal gesture is one which the other magazines omit altogether.

The only improvement which I could suggest would be for the editor to intersperse his remarks in brackets within the bodies of the more important letters. Even this would not be necessary except in cases where the editors demanded definite and immediate answers. How about it?

I'm glad to see Elliott Doid is back. With Doid, Brown, Wesson, and Marchand you have the best illustrators in the field. Sometimes I like to sit back and study a picture by Doid and admire the wealth of detail which he puts into his work. Somewhat like an art critic studying a painting by Michelangelo—or is the comparison too far fetched?

It's been a long time since we had a really high-powered science story—like *The Shipyard of Vesper* by Dr. Smith. Don't you think it's about time to try to do another story like this? I advise all the readers who want to have more heavy science, thought-variant stories to come on and write in. If enough letters come in, we're pretty sure to get a few, so come on. Now, the final chorus—we wait a quarter!—L. F. Wakefield, 2833 Marshall Way, Sacramento, California.

Your Answer is in Letter No. 1.

Dear Editor:

Although I have been a reader of *Anteonding Stories* for over a year, this is the first letter I have written to your magazine and the main reason for this letter is to ask if it would be possible to purchase the Stanley G. Weinbaum memorial book. If that idea ever materializes, in every issue I have had to have looked to see if there was a yarn by him. He was one of the best ever.

I have read the June copy and it calls for a few remarks. The issue as a complete work was very good—the best I have read so far, but *The Shadow Out of Time* seemed to me to be a reborn of *At the Mountains of Madness*. If it was necessary to have a sequel to that story, which I did not like, why not have had a proper one about the Starweather-Moore Expedition instead of a story which, although it did start by being different, went back to the same track and had the same insensitive ending?

For the rest of the issue, *Encores* was good, but if the life went backwards, where did it originate from? *Gleams* was fair but a sequel should be much better. *The Glowworm Flower* was a very good idea very well thought out. I thought the rest of the stories were well above your standard, high as it is. I have not yet read *The Centuries* as I am waiting for all the parts before I start on what promises to be a great story.

Accuracy is just what I have been waiting for. And now to conclude, how about printing your own remarks about readers' letters?—Frank W. Lima, Aldershot, Hants, England.

Winterbotham Takes it This Time.

Dear Editor:

The *Frane That Vanished*? Bah! What is *Anteonding Stories* coming to where you include that trash as science-fiction? Sure it had science in it. All about gravity and the speed of the

earth's rotation. If the readers wanted that kind of reading matter they could find plenty of it in the libraries. And what a plot, just some ramshackle trips about the here (if you could call Wallack a here) being tied to a railroad track with the milk train rushing downhill. And the author must have forgotten to read in the last page of the story with the reading on it. The end you printed as the end was heavy. In fact, the whole story was heavy. I could write a better story myself.

The rest of the magazine was swell and I have no complaint to make about any of the other stories. In fact, there was only one thing the trouble with the magazine. It's too short. I always finish each issue, with the exception of the serial, the same evening I buy it.

If any of the readers have any old issues they would want to lend me, I could return any they sent me in the same condition as they were when I received them, that is if they wanted them back.—Robert Schrammer, 316 Hunter Avenue, Dayton, Ohio.

July Issue—Perfect?

Dear Mr. Tremaine:

Allow me to be among the first to congratulate you on the perfect issue of the perfect magazine. The July issue of *Anteonding* is the issue to which I refer.

I have read science-fiction for five years and in all that time I have read nothing like the current issue. I have been to work the same as a starving man exploring the dry bed of a river in a vain search for water. At the time I was despairing I stumbled onto a clear pool. Let the river bed represent five long years and the pool becomes the July issue of *Anteonding*.

You have made remarkable progress in the short time you have edited the magazine. I have compared it to every other science-fiction magazine issue it has been my fortune to have read. I hardly need to say *Anteonding* has outstripped the best of them. Above all, you are giving us good literature. The style and composition of most of the stories merit sincere praise.

I like most of your artists except Sauty. Marchand should go back to his style of 1931 and stop trying to imitate Doid. Doid is the only Doid. Here's my vote for Paul.

Give us more stories like *Frictional Losses*. If there could have been a "best" story in the issue, *Frictional Losses* would have been that story.

One thing more—*Mathematica* and its sequel had no thought in them and were quite useless except for entertainment. All of *Frane's* explanations, even when casually examined, turn out to be empty and meaningless. The author made the statement in the readers' department of another magazine that he did not intend to write stories that stuck to pseudoscience. Enough—James Michael Rogers, 1216 West Broadway, Muskogee, Oklahoma.

Winterbotham Up for Air.

Dear Editor:

Although I have been reading *Anteonding Stories* for almost two years, this is my first letter to you.

Let me congratulate you! The July, 1936, issue was the best one I've ever read. The cover was fine. Brown gets better with every issue. Then, the stories! *Australians* was swell. *The Time Accelerator* was very good. *Frictional Losses* was also fine. *Perfection* was too fantastic but still it was gripping. But here is the one note. Code of the *Specktrums* was very good. I never have liked Krum's stories. *The Frane That Vanished* was very good. The Solar System series is excellent—extremely interesting.

1. In away with Krum.
2. How about getting David H. Keller?
3. How about some comments in Brass Tacks?
4. We want Paul.

Hoping that the magazine keeps up its present standard.—Allen Kestler, 2112 West Street, Walston, West Virginia.

Says T-V's Are True Science-Fiction.

Dear Editor:

I offer my congratulations to you on having the best—and most frequent—science-fiction publication of to-day. Astounding has made immense progress in eighteen months with its thought-variants, extra pages, the swarming of stories by Dr. Smith, John Talbot, Charles W. Duffin, etc., and now we get trimmed edges and a promise of more to come.

I hope you won't be displeased if I criticize a little now that I have put you in the proper receptive mood. Please continue with thought-variants in spite of adverse comments regarding their too frequent appearance. To me they embody exactly all the ingredients of true science-fiction, new ideas, careful thought, and a little fantasy, which latter does not always receive its proper place.

I was pleased to see H. F. Lovecraft's serial lately, which brings me to a point. Please have more real book-length serials—at least two running concurrently, but do not divide them into more than four parts.

There are several authors, favorites of mine, whom you have not as yet backed up.—A. Hyatt Verrill, Dr. Keller and Ray Cummings, who are all unique in their respective classes. I would also like to see some short stories as they are the magazine's weakest point. Why not a novelette instead?

Your best regular contributors are Jack Williamson, Nat Schuchman, John Russell Fearn, Murray Leinster, and of course, the late Stanley G. Weinbaum. By the way, what is wrong with the author of *Parasol to Earth and Cosmos*? Mr. Wanders is now almost a stranger as regards his science ideas. He started wonderfully well but I'm afraid he couldn't keep the pace. Try again, please, Mr. Wanders.

If you ever decide to publish *The Planetoid, Strange Tales*, or a quarterly, please accept my thanks in advance. And to me a twice-monthly would warm the very veins of my heart.

In the hope that this letter is published I wish to state that I want to get in touch with some one in Britain who has old science-fiction magazines for sale. I want all kinds but particularly those numbers of the old *Astounding*: April, July, and October, 1920; January and April, 1921; November, 1922.—Thomas Roth, 28 Broadway Street, Germiston, Glasgow, N. Scotland.

Code of the Spaceways Again!

Dear Editor:

Before starting anything else I would first like to take up the matter of illustrations. The cover, first of all, while not outstanding, is very attractive. But as for Brown's interior illustrations, I think you had better remind him to the cover. Naturally I was glad to note the reappearance of Daid as he is worth better than Prometheus and the other contributing artists (this does not include Weiss). The best interior illustration of the issue was one by Weiss for *Prisoners of Lemnos*. That double-page illustration is superb. Daid's illustrations are the only other good ones in the entire magazine.

When I read *Code of the Spaceways* I was rather bored up. I don't mind when a story is a little hackneyed because it tends to lull, but when a story is too hackneyed I can just about bore through it. The novel and novelette, however, were very interesting.

I noticed after reading Bruce York's that quite a few of the readers are asking for a quarterly. I also would be desirous of having a quarterly. What about it, Ed?—John V. Bainbridge, 1704 Frankford Avenue, Philadelphia, Pennsylvania.

It Isn't Easy To Please.

Dear Editor:

There's only one thing I don't like about *Astounding*—and that's the illustrations. Without exception, they are—well, in plain English or American, I should say, poor. If you want to improve your magazine one hundred percent, find one good illustrator and stick to him.

There is one artist in particular I have in mind. He works for one of your competitors. His drawings are so realistic and satirical that when I saw the first one I thought it had three dimensions. By the way, take a look at the second illustration for *The Shadow Out of Time* in the June issue. Most of the things grating (or disgusting) at the *Newsweek* or *Nation* are there. Whoever drew it also put one of the finest lines of *Newsweek* Cartoons there for good measure.—Corrad Wilson, 425 E. 67th Street, New York City, New York.

Suggestion.

Dear Editor:

I have just finished Part 3 of *The Conquerors* and wait patiently for the concluding installment of this great story. The *Conquerors* is the type of story which puts *Astounding* way ahead of the other science-fiction magazines.

Astounding readers: Try to read "Rockets Through Space"—The Dawn of Interplanetary Travel by P. E. Chester. It is non-fiction and shows what has been done up until now on the development of the rocket. This book with the advertising it got in the New York papers surely will help in turning the public's eye toward interplanetary travel.

Keep up the good work. Please more stories by Jack Williamson.—Emmanuel Levy, 364 Sheridan Avenue, New York City, New York.

Again, July Issue Judged Best.

Dear Mr. Tremaine:

I have just finished the July issue of *Astounding* and I find it very good—in fact it is the best issue you have ever put out.

All the stories were good but I liked the following best: *Prisoners of Lemnos* (superb, please), *Australians*, *The Conquerors* (each part is better than the one preceding it).

Glad to see Weiss and Daid doing most of the art work. They are as good as ever.

Please take Brown out. His illustrations for *Parasol* (which by the way is a very good story) spoiled your July issue, but his cover was pretty good.

Why, oh why, don't you let Weiss do at least one cover? How about getting Paul to do a few illustrations?—James Treadwell, 137-07 22nd Ave., Flushing, New York.

July Cover—Symbolical.

Dear Editor:

Let me add my congratulations to what I believe will be a great cover of approval for the uniqueness of the July cover. This beyond a doubt is Brown's best. Now in one breath taking glance is crystallized all that science-fiction stands for—the mighty sky lanes of the upper atmosphere, long, curving lines of gleaming, cylindrical ships, pointed against a tumbling vista of clouds. A tremendous scene among the mighty battlements of clouds!

As yet I have not read any of the stories, but they look especially good and the interior illustrations are the best that I have ever seen in any of the science-fiction magazines and I have been reading them well on across years. The opening illustration by Weiss for *Prisoners of Lemnos* is the best in the issue and to my mind shows the superiority of Weiss over Daid.

whose drawings are much too dark. I may be wrong, though. The said Brews was no guest at interior sketches! Ask news of the party!—Henry Sherman, 3120 Lincoln Avenue, Chicago, Illinois.

A Different Approach.

Dear Editor:

I cannot understand the slowness of selection referred to in the June, 1936, issue of *Amazing Stories*. It has taken on all the qualities of mental decay and morbid neuroticism that mark those magazines (and newspapers) which are morally pure if not physically so.

I read, with inveterate regularity, all science-fiction. It is possible to lay my hands on *Thriller* reads my lick. *Amazing Stories*, in the mentioned issue, builds itself into a monstrous cyrene and headache—on the one hand hysterical unreasonableness and on the other an intolerable lack of taste or science plot.

I have always maintained among my friends that science-fiction, in its present-day form, is borrowed up by some of the best and most clear thinking of authors and editors and that it is an art of much greater significance than is attributed to it. It is with this thought I put forth my feeble plea to you. Please keep your magazine from becoming *foamy pulp*. (*Foamy* is the only word I can honestly use.)

It is tremendously hard for me to express my sincerity without becoming somewhat facetious, or outright bitter. I intend to be neither and if, with such intent, I give the impression of both, I hope you will pardon my intrusion.

As a practical criticism I present the following:

The cover, a painting by Howard V. Brown, distinctly reminds me of a cartoon, about how small the newly engaged husband felt upon being confronted by his three maiden aunts. (Of course that was my impression before I had read the story, *The Shadow Out of Time*.)

The story, *Merks Conquerors*, by Max Schachner, approximates, in its literary tendency, the struggle of a sympathetic author without imagination to portray in verbal form a theory beyond his own inadequate comprehension and in so doing, creating a picture that leaves one entirely cold and unresponsive to the possibilities of the theory.

The *Glaciers of Time*, by Stanton Coburn, would, but for the subheading, be a necessity to be overlooked without remark. However, the subhead reads, "The sort of science-fiction which this writer alone can weave into a novel." The astounding thing about it is that quite the opposite is true. The "novel" is rather lacking and the material of the most inferior "weave." It has the talent of cheap mysticism and a definite anti-scientific moral.

Too awful *The Conquerors*, by Jack Williamson, is of different caliber and comes close to being good with the exception of one thing. Our mutual friend, Jack Williamson, has made the unconscious error of a great many speakers who have had something to say and didn't realize it was already said.

Love Home, by Chas. Corbett, becomes another document in gross the already overdone line of those who consistently keep on the scientific dogma and break down that knowledge brings perfection and in such like perfection brings learning and destruction. Strangely enough, it is stories like *Love Home* that assist in the creation of organizations like the *Stand Legion*.

At the *Center of Gravity*, by Ross Hartigan, has to be beginning, no end, and no scientific bearing.

Glaciers, by Warner Van Lorne, is excellent! (Don't be so shocked. I really am offering an accolade.) There is one question I wish to ask, however. Is a way it is foolish, considering the story is there complete, but unconsciously it comes back again and again. . . . Where is the rest of it?

Your scientific discussion, *Aeronomy*, by John W. Campbell, Jr., is excellent and valuable knowledge put in pleasant form. I am con-

vincedly afflicted with the idea that some of your authors might write a good story based on the fundamental idea of that article.

The Orbits of Thought, by Spencer Lane deserves another flower, though not ascribed. The thought content of the story is good but the author accomplished, and far too readily, the too easy demonstration of having one foot on firm ground with the other wavering dangerously over quicksand.

The Shadow Out of Time, by H. P. Lovecraft, is even worse. If such is possible, than his previous serial. The morbid tenderness of a victim of acute amnesia to remember what he has forgotten and in so doing to drive himself almost mad, to say the least, is word and stretches the psychological angle beyond endurance. The simile in this case is *Dracula* dressed up as *The Man From Mars* and wearing *Frankenstein*. I suggest you turn brother Lovecraft and his stories over to some other magazine or change the name of your magazine and stop disgracing science-fiction.—John R. Carroll, 1125 M Street, N. W., Washington, D. C.

Best Letters Are Published—or Answered.

Dear Editor:

Although I have been reading science-fiction since 1921, I have never before done much letter writing; but I've decided to come around more or less regularly from now on. One of the reasons for my writing now is to express my appreciation for the trimmed edges which we have had now for several months. And as Jack Darvay would say, the best story is large size. Every time I glance at *Amazing Stories*, I become furiously jealous. And that should prove how fine the large size is, because that magazine now gets much better display. Before I had hardly heard of it; now I cannot escape seeing it as I enter a store carrying magazines.

Merks, in the latest issue is super-scientific. Wouldn't that make a great movie? Boy, it's got *Science* and *Frankenstein* fused to obtain. Schachner sure can write science-fiction. He really made me live that story, and it fairly thrashed with power.

I thought that *Australasia* (sounds as though you're going in for geography) was rather poor: Van Lorne seems to be good at times and poor at other times. For instance, the *White Aeronaut* was fair until he failed to explain the queer snow; and then it became mediocre. And *Glaciers* was fine despite the time-war plot.

When I first opened the July issue, I came immediately upon the first illustration for *Australasia*. Immediately I exclaimed, "Dad's back!" It's fine of course to have him back, but couldn't he have given us a slightly original illustration? Whoever he has a scene within a space ship, he shows the same thing, the two-page drawing, the mass of controls, and the man at one side with his hands held out in some sort of astonished position. I bet he did half a dozen of them for *The Shipyard of Valeros*.

Frictional Leases was swell. There are few invasion stories that please me, but this and *When the Atom Falls* by the same author are among the good ones. The illustrations by Weiss were very good, especially the two-page one. How about more like that?

You fell down again in short stories. All but *The Venus* were rather poor, but that was good. Miller did much better than in *The Shadow*.

Willis Conover and I were looking over a copy of the July number, and when we came to a certain story, Willis cried, "Code of the Space-weaver, huh! I bet it's Krueger!" Of course it was. My god, can't that guy write about anything but ropes and rubbers. He really is a good writer with a pleasing style, but the theme he takes—! Why can't he write science-fiction instead of that *Wild West* stuff?

Who selects the subjects of cover illustrations

anyway? About four-fifths of them are rotten. Brown is a good artist, but the women he picks do not really express the spirit of the magazine. This year he has had two that were really good, April and July. This month's is even; it seems to have power. And Brown did a good job on the leader, too.

Schweitzer is coming along nicely, and his work in the June issue was good. It almost looked as though you were going to make a chief artist out of him. But this month he only had one.

There are two improvements that would be easy to effect and would make the magazine much better: answers to the letters in Bruce Tuck's, and short editorial comments on the stories introducing them to the readers, commenting on them and perhaps going over the scientific backgrounds. These latter would look much better than those hackneyed phrases you now use.

You see I was bred on large-size magazines with editorial comment and so on, and I can't adjust myself to the new school of science-fiction editorial policies. I think many of the old-timers will agree with me.

Some people have said that inasmuch as you are considered the most popular of magazines and you don't answer letters, that you are using the best publicity I think that is wrong. I think you're losing popular readers, not because of the fact that you leave letters unanswered, and almost every letter concerning the answering of letters agrees that you should answer them.

And now one last plea—for the large size.—Howard Round, Jr., 211 Delaware Road, Kenmore, N. Y.

Not a Kicker.

Dear Editor:

I've been a silent reader for quite a number of years. I'm easily satisfied and I never raise my voice or pen in objection to anything about the magazine.

I just bought the magazine to read the stories and save them and now I have an unbroken set from 1930 on down to the present time. I would like to hear from other science story fans where I have some magazines to give or trade away.

I think quite a few readers would like to have some. They're yours for the asking or for trade. I am very much in favor of Astounding Stories available or exchangeable.

There was one letter in the June, 1936, issue that I quite agree with. Please don't have any more long articles but have serial-length stories or quite a few short ones. I think *Glaciers*, by Van Lorne, is one of the best I have read in a long time. I have nothing to kick about with the magazine. I think it is the best on the market by a long shot.

Hoping to hear from other science-fiction fans in the near future and the best of luck for the rest of the upcoming year.—John Newbern, 125 Maple Avenue, Monroe, Michigan.

Just Speaking of the Good.

Dear Mr. Tremaine:

Keep coming! Keep coming up! You have, or rather had, your competitors skinned two years ago and now you're so much in the lead that you couldn't see them with a 300-lb telescope. I want to congratulate you on your stories, Dave Jones' Ambassador and *Glaciers*. They are the best since *Robot*.

Only one kick to make about *Astounding*: All your stories about space ships take place in 2019 or some year like that when space travel has been established for years. Why don't you have one about 1938 when the first space trip is made to the Moon?

Some of your illustrations are nice and some are swell. I hesitate to name the better ones, but take my word for it. Brown, Wagon, Schae-

man are swell! Let's have a sequel to *Glaciers*! *How's it Astounding!*—D. Jerome Bixby, 2200 Park Avenue, Lincoln, Nebraska.

Three in One Family.

Dear Editor:

There are so few letters from women that it looks as if women don't read science-fiction magazines—but they do. Several women in my circle of friends read the science-fiction as well as the real scientific magazines. I suppose there is a reason for that, though, for I cultivate the friendship of women who can discuss intelligently the many wonders of the present age—and speculate upon the busy contours of the future according to major trends.

I like the average run of stories in *Astounding* much better than those in other science-fiction magazines. Your stories are more probable except stories like *The Comets*, which cut their swathe in the thirteenth century and yet speak of fuel "in tanks." Also "rocket ships." "Tut! Tut! Even a dumb female has a pretty good idea that the next fifty years (conservative estimate) will see the end of combustible fuel for airplanes of all kinds. We will "pick our fuel right out of the ether." We already know it is there and a way will be found to harness it—a fuel that will require very little machinery. How our dreams of interplanetary gauding will be all probability remain—just a dream.

I liked *Glaciers* very much, also *The Shadow Out of Time*. But the best thing in the magazine is the scientific article *Aerocrym*. I hope there will be a long series of articles on that subject. I live within thirty miles of Griffith Park Planetarium—and have enjoyed going there, very, very much. I have missed only two exhibitions since it was opened—and I intend to go next year and make it up. I hope to be able to take a peak at the show through the great 200-inch telescope when it is opened.

Such my news and I enjoy your magazine very much. There is only one fault to find with it and that is that it should be out every week instead of every month—at least every two weeks.

How's hoping the demand for the magazine increases until you will be forced to issue it daily.—Nancy Shandworth, 215 West 11st Street, San Pedro, California.

Do We Fit This Description?

Dear Editor:

In the pages of *Astounding* I have read many stories of unearthly races, foreign creatures and interplanetary conquests. But as yet I have never read a tale of the most interesting of home conquests, the science-fictionist.

Let me describe him to you: He is of medium height but walks with a slight stoop of his shoulders. He has a sort of blank expression with a childish leer as if regarding with contempt our present-day activities. Kine out of two times he wears eyeglasses. He is afflicted with the disease called "science-fiction fan writing." You can recognize this disease by the blue spots on his right hand—that, probably, I myself am in the throng of that horrible disease, this being my first letter to Bruce Tuck.

The science-fictionist is a dreamer but occasionally one of his species accomplishes a few things as for example the rocket flights of the International Scientific Association of 2151 61st Street, Long Island City, which is composed of almost one hundred per cent science-fiction fans and amateur experimenters.

I want to congratulate you on the steady improvement of *Astounding* as at this time it is unquestionably one of the best science-fiction magazines on the market. Keep up the good work and readers will keep on reading it.—Walter H. Kishine, 74 Manhattan Avenue, Brooklyn, New York.

Sorry, but Such Coverprints Are Not Available.

Dear Editor:

I have read most of the issues of *Amazing Stories* for the past few years and have been very pleased with the progress your publication has made. I can speak with some knowledge when I say that your publication is the highest class of its type, since I have read them all.

I wish to say that the cover of the July, 1936, *Amazing Stories* is the most beautiful and most characteristic of any I have ever seen. There is vision; there is beauty; there is space. Yet Earth has a part of it, too. Science is evident, but so is grace. Depths of artistic and useful engineering thoughts show in the space ships shown. If one has not read the story for which the picture was made here is an uplifting reveal of pride in what must some day come. I'll admit the story *Paradox* has one down side—wonderful contemplation of national hatred. You had our stories must be based on the things we are trying to wipe out.

Can I get an enlargement of this cover free from printing in the same fine coloring as I may frame it? It is symbolic to me.—Robert A. Wall, Wheelbarrow Grain Products Company, Decatur, Illinois.

Van Lorne's Turn!

Editor, *Amazing Stories*:

Until a very short while ago I was virtually building over with praise for the July number of your magazine, but that was because I had not read *Australasia*, by Warner Van Lorne. How such an amateurish, rapid story could ever have come to an end in anything but the wastebasket I do not know. I would like to know your reasons for including it in what would have otherwise been an excellent collection of writings. I'm afraid you're taking chances on your job. Inside the month my mind has so lately received, I conclude to believe that necessity will develop or create what is needed—that should you ever go bi-monthly, creating a still larger demand for science-fiction, there would be enough good material to supply your demands.

I'm proud to know that I'm not the only one who has suggested biographies of authors. Why not try giving us a few biographies of authors and artists? To my way of thinking it would improve *Amazing Stories* more than any of the other departments thus far asked for. Most of them, calling for plans of space craft, etc., would only interest a fractional part of your readers whereas a reader who is interested by half the matter in any publication would be interested in knowing something of the men and women whose words made that publication enjoyable.

Before giving my opinions concerning certain authors I'll say that I think it is best to keep editorial footnotes out of *Brass Tacks*. They haven't rendered your competitors any noticeable benefits that I can see.

And now for the authors: Murray Leinster is your best; he always has something to tell and tells it in a natural-like way. John Russell Fearn is developing a very serious technique—admirable from the critic's point of view because it allows its master to go on indefinitely telling high-sounding, idiotic nothing in a manner that really makes them appear to be more than fantastic, simple and often foolish ideas. If Mr. Fearn should ever see this, I hope he will understand that, fantastically enough, considering my way of expressing it, the foregoing is sincerely intended to be a compliment. I wish I were able to take nothing and make it sound like something.

The following are to be recommended for their rhythmic sequence of words in some of their tales: C. L. Moore, H. P. Lovecraft, Frank Bennett Long, Jr., and Don A. Stuart.—Lawrence Larky, Moore Springs, Virginia.

Food For Thought.

Dear Editor:

I have been reading *Amazing Stories* for about four years, and have witnessed many important improvements, but the beauty and beauty in my opinion is the trimmed edges.

The first thing that catches the eye of the June issue is the cover painting by Brown. His picture of the members of the Great Race remind me of the Sphynx-like globe used by Dr. William Beebe.

After reading *Brother's Fairer*, by Ned Schaeffer, my mind was filled with many ideas, namely: If a space ship was going faster than the speed of light and everything in the ship was turned about, even the bodies of the occupants, would the change be noticeable to men whose brains and eyes had been turned around? For example: turn a printed page upside down. The printing is hard to read because it is upside down but when you stand on your head, the printing appears to be right side up and is easily read.

The *Glaciers of the Future* was just another story about a great catastrophe overtaking the world in a few years and killing half the people.

The *Comet* is coming along fine. Jack Williamson, surely knows how to make his stories interesting by portraying interesting characters.

How Home was more different than any other story previously published. Science was nothing out of the ordinary, and don't you think that men have more curiosity than those in the story? *Origin of Thought* was excellent. The *Shadow Out of Time* was too long and drawn out but the main thought was good. In the story, Prof. Penzance's mind was sent into the past and took the body of one of the members of the Great Race, but the illustrations show him in his own human body in the Great Race Age.—Kearth Newman, 4924 College Avenue, Indianapolis, Indiana.

We Like Suggestions. Here's a New One.

Editor, *Brass Tacks*:

Upon laying aside my work read July issue of *Amazing*. I have a very slight—another month before, I can finish that intensely interesting story of Williamson's, *The Comet*. I sincerely hope it doesn't fade out in the last installment.

Being an old-timer, I should be privileged to make a few remarks. I didn't particularly like Flator's illustration of *The Five*—seemed all out of proportion somehow. Marchant still runs too much to black and white. Wynn and Dodd are your best with Schaeffer and Dodd coming along nicely. Brown's covers are interesting—come good and some not. Still perfection is not a human trait.

Schaeffer and Stuart turned out good stories this time. I say, keep Krue and his space yarns. There are just as many people liking his stories as any other type. Martindale's tale was interesting in a way and suggests a sequel, but Time is a touchy subject. Campbell's cover is good. Keep it up.

And now, may I suggest something? Something which I hope, if done, will do much to promote science-fiction. Not a new idea, by any means and you can take it for what it's worth. How about devoting a few pages to short-short stories of science-fiction, to be contributed by your readers? Small prizes would be given but professional writers should be discouraged. Surely a magazine with as intelligent editing, such as *Amazing* can boast of, has potential authors among that following. Perhaps there is another Williamson among your following, and that should be incentive enough for any editor. How about submitting the idea to the fans via *Brass Tacks* and getting their reactions?—R. W. Parr, U. S. S. Sandpiper, San Diego, California.

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